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NOV 10 1947**INSIDE DOPE**by **GEORGE F. TAUBENECK****Story of the Week****How Much Can We Believe?**  
**Nothing New Under the Sun**  
**Is the North Pole Warm?**  
Tel. 62366  
Chain Letter Fun**Story of the Week**

A modest fellow by the name of H. C. L. Jackson writes a daily column on the back page of the *Detroit News*. For our money, he's the best story teller of all the columnists we read.

Recently he told a marvelous Pride-of-Possession story about an automatic washing machine. With Jackson's permission we'll quote it here:

"Before anyone thinks that Mrs. Dinglehoover is just an elderly sound off, it's well to remember that, although she's prosperous now, there were the long, lean years, when she and her husband felt, keenly, the pointed fangs of poverty, as they struggled to bring up their children during the Depression.

"But that's all gone now. Mrs. Dinglehoover's neat little home has all the latest gadgets, and the peak of her present pride is her brand-new automatic washing machine.

"She has been heard to say—too many times in the opinion of the neighborhood housewives, most of whom are much younger than she—'If you'd only get yourself an automatic washer like mine, you'd get your washing done in no time at all!'

"Yes, so frequently has the 50-year-old Mrs. Dinglehoover made this remark—and isn't it strange how easy it is, in affluence, to forget the bitter days of being broke—that it's become a particularly sore point with her neighbor on the left—

"She's in her thirties, with four children, and a husband who, with her frugal help, is trying to bring those youngsters up during the Inflation. But—

"During the last two weeks Mrs. Thirtyish hasn't had to hear anything about the automatic washer. In fact, all she hears from Mrs. Dinglehoover is a silence barbed with keen resentment.

"Three Mondays ago, at 3 p.m. Mrs. Thirtyish was just hanging out the last of her washing—as a matter of fact, her husband, on his day off, was helping her—when out trotted Mrs. Dinglehoover to her back yard, where the white clothes were snapping triumphant in the breeze.

"She called, in a voice that carried not only to Mrs. Thirtyish but to her neighbor on the right.

"Just getting your clothes out? I had mine out at noon. So would you, if you'd buy an automatic like mine."

"Mrs. Thirtyish flushed, but she did not answer. She did not have to answer. Her husband answered for her. He walked firmly to the back fence, looked Mrs. 50-year-old Dinglehoover in the eye, and roared:

"My wife will have an automatic washer like yours, when she's 60 years old, like you."

**How Much Can We Believe?**

(Concluded from Last Week)

Possibly we all-too-mortal human beings are on the verge of foreseeing the Future—when we plot these coincidental time-cycles, and try to assay their significance. Maybe a trustworthy crystal ball has been discovered at last.

But can we really attach true significance to the Cyclists' interpretations of off-again-on-again happenings? Is the Science of Cycles just a roll of boloney, or can it tell each one of us how to conduct his life so as to do the best he can each

(Concluded on Page 6, Column 3)

**Precision Utilities  
Plans To Market  
2-Temp Model**

ROCKAWAY BEACH, N. Y.—Precision Utilities Mfg. Corp. has entered the household electric refrigerator field with a new 8.2 cu. ft. two-temperature box which will become available to distributors and dealers around the first of the year, the company announces.

In addition, Precision has introduced a small water-operated dishwasher and a new ice box.

Since January, 1946, when it was purchased by its present owners, the company has been producing such electrical appliances as broilers, toasters, and heaters, and kitchen cabinets and closets. It also manufactures ice boxes, having produced 30,000 in 1946.

E. J. Dunn, president, and Benjamin Fried, secretary and treasurer, are principal stockholders of the firm, which maintains a sales office at 1 Park Ave., New York City.

Known as the "Frost Queen," the new electric refrigerator, which may list at \$349, includes a 1.5 cu. ft. frozen storage compartment across the top, with separate controls provided for both the freezer and the standard temperature compartment. Interior is of all stainless steel construction and has a shelf area of 11.96 sq. ft. Exterior dimensions are 30 in. wide, 24½ in. deep, and 59 in. high. Exterior is made of aluminum finished in enamel.

Seven months' development have  
(Concluded on Page 33, Column 1)

**Brundage Is Weber  
Director of Sales**

LOS ANGELES—Henry M. Brundage, former commissioner of markets for New York City and one-time chief of the domestic appliance division of the War Production Board, recently became vice president in charge of sales for Weber Showcase & Fixture Co., Inc., here.

Karl Weber, president of the company, said Mr. Brundage will lead an expanded merchandising and sales organization to deeper penetration of both national and international markets. Additional sales offices are expected to be established in key locations.

Mr. Brundage was called to Washington to take over the WPB assignment shortly before the Pearl Harbor attack. In that position, he wrote and administered limitation orders controlling production and distribution. He was a member of WPB's faculty on priorities control and later  
(Concluded on Back Page, Column 1)

**Air Conditioning and  
Commercial Shipments  
Up In Second Quarter**

WASHINGTON, D. C.—Second quarter shipments this year of commercial refrigeration and air conditioning equipment as reported to the U. S. Bureau of the Census showed a slight increase over the first quarter in condensing units, a substantial increase in self-contained air conditioners, and a considerable decrease in ice making machines.

Condensing unit shipments in the second quarter totaled 319,542 units, as compared with a revised total of 309,681 units in the first quarter.

In the second quarter producers reporting to the Bureau of the Census shipped 25,240 air conditioners, as compared with 18,749 such models in the first quarter.

Only 973 ice making machines were shipped in the second quarter, as contrasted with 2,059 in the first quarter of 1947.

**Wage Hour Div.  
Weighs Changes  
In Law Dec. 2****Definition of 'Executive'  
Jobs To Be Considered  
At Washington Hearings**

WASHINGTON, D. C.—Hearings on proposed changes in the Wages and Hours Act which would affect the definition of the terms, "executive, administrative, professional, local retailing capacity, and outside salesmen, will be held here Tuesday, Dec. 2, by the Department of Labor's Wage and Hour Division.

The public hearing is scheduled for 10 a.m. in the Departmental Auditorium on Constitution Ave. between 12th and 14th St. N.W.

Among the reasons for the proposed changes cited by Wm. R. McComb, national administrator of the Fair Labor Standards Act are "changes in economic conditions which have taken place" and also the fact changes have been petitioned by the United Electrical, Radio & Machine Workers of America.

The union seeks a \$500 monthly  
(Concluded on Page 4, Column 4)

**'Allocation' Plan  
Would Hit Steel**

DETROIT—The supply of steel is not yet fully meeting domestic demands, and any decrease in the supply through an "allocation" or government control program will set back production of fabricated metal products, industry spokesmen declared last week.

(Some political forecasts have predicted that an effort would be made in the coming special session of Congress to establish allocations of steel and other raw materials, to permit increased exports of such materials.)

E. E. Helm, chairman of the motor and generator section, National Electrical Manufacturers Association, warned that should domestic steel supplies be cut as little as 3%, such a move would "simply reinstate many of the supply difficulties from which they are only now recovering, and result in further unbalancing inventories and become a major obstacle to the increased production of electric motors."

A bulletin from a distributor of household electric refrigerators says: "Steel is still scarce; some say scarcer than ever. Accordingly, re-  
(Concluded on Page 4, Column 4)

**Locker Plant Financing Co.  
Sets 5% Rate, 40% Down**

CHICAGO—Several changes in its program for financing of locker plants as announced in the NEWS of Oct. 27, have just been made public by the Locker Plant Financing Association here, according to F. C. Hartmann of the financing company.

Interest rate has been reduced from 6% to a flat 5%.

The down payment is to be 40% instead of the three plans originally scheduled which called for down payments of 25%, 33½%, or 50%.

Monthly payments will be approximately 25% of the total annual payments divided into 12 monthly instalments. Balance of the annual payments will be paid in the form of a balloon note on the thirteenth month, repeating the same method of payment for each succeeding year until the loan is repaid.

Loans are to be repaid in four years, and the contractors will have no recourse at any time, according to Mr. Hartmann.

**W. C. Newberg Is  
New President of  
Chrysler Airtemp**

DETROIT, Nov. 6—W. C. Newberg has been named president of the Airtemp Division of Chrysler Corp., succeeding D. A. Russell, who is retiring after being Airtemp's president for eight years to go into business for himself.

The announcement of Mr. Newberg's appointment was made today by K. T. Keller, president of Chrysler Corp.

Mr. Newberg is 37 years old, making him one of the industry's youngest executives. During the war he was chief engineer of the Dodge-Chicago plant, which turned out 18,000 B-29 engines. From 1945 to his present appointment, he had been on the staff of C. L. Jacobson, assistant to the vice president and general manager of Chrysler Corp. in charge of all subsidiary activities.

Born in Seattle in 1910, Mr. Newberg received his degree in mechanical engineering from the University of Washington in 1933 and his master's degree in mechanical engineering from the Chrysler Institute of Engineering in 1935. For the next seven years he worked in different engineering departments of the company until he took over as chief engineer at Dodge-Chicago in 1942.

**V. P. Black Appointed  
Airtemp Adv. Chief**

CLEVELAND—V. P. Black, who joined the Airtemp Division of Chrysler Corp. in February, 1935, has been named advertising manager of the division, reports H. A. Malcom, vice president and general sales manager.

After serving in various capacities Mr. Black took charge of advertising for Airtemp in 1939. However, his expert knowledge and supervisory ability were needed in other fields during the war and he served as manager of Airtemp Construction Corp., a wholly owned subsidiary.

With war and postwar pressure removed from the last mentioned department Mr. Black has been called on to head the expanding advertising department.

**All-Industry Show  
Space Is Sold Out**

PITTSBURGH—All exhibit space has been sold for the 5th All-Industry Refrigeration and Air Conditioning Exposition, to be held Jan. 26-29 inclusive at the Public Auditorium in Cleveland, reports R. Kennedy Hanson, executive secretary of Refrigeration Equipment Manufacturers  
(Concluded on Back Page, Column 2)

**American Coils Files  
For Reorganization**

NEWARK, N. J.—American Coils Co. here, manufacturer of refrigeration coils and air conditioning equipment, has filed a petition in Federal Court to effect a reorganization under Chapter X of the Bankruptcy Act.

Thomas W. Binder, president of the company, and Andrew B. Crummy, Newark attorney, were named trustees by Federal Judge William F. Smith, who set Dec. 22 as the date for the court for the continued retention of the trustees.

The trustees were directed to notify creditors of the proceedings and to report on progress towards a plan of reorganization by Feb. 21, 1948.

The petition listed assets at \$947,989 and current liabilities at \$257,646.

**Major Finance  
Firms Hold To  
'20% Down'****Mail Order Houses All  
By Themselves In Offer  
Of Lower Down Payment**

NEW YORK CITY—With the passing of Federal credit controls, credit men are showing a strong spirit of caution in setting the policies that they will follow on major appliances, radios, phonographs, and television sets.

Down payments asked range from 10 to 25%, while payment terms extend from 12 to 36 months, mainly depending on the size of the purchase.

Commercial Credit Corp., Commercial Investment Trust, and General Motors Acceptance Corp. are following a policy of 20% down payment with 36 months to repay on major appliances and 24 months to repay on radios, phonographs, and television sets.

The American Bankers Association follows the others on major appliances, but asks a 25% down payment with 18 months to pay on radios, television sets, and phonographs. On appliances it requires a \$15 minimum down payment and a \$7.50 minimum monthly payment.

Consumer Bankers Association has set up a minimum 15% and a maximum 25% down payment on major appliances. When the minimum down payment is made, 18 months will be allowed for payment. When  
(Concluded on Back Page, Column 4)

**Philco Fights FTC  
Attempts To Stop  
Salesmen Awards**

PHILADELPHIA—Staunchly defending its "sell 'n win" sales promotion campaign, Philco Corp. here has rejected a recommendation of the National Better Business Bureau that the promotion be dropped and has denied charges made by the Federal Trade Commission that it involves a lottery scheme, deceives the public, and disparages competitive products.

The Federal Trade Commission, in its complaint, said that the Philco campaign offers cash awards and other prizes to sales personnel of independent dealers for selling Philco products.

"Prizes of merchandise are awarded by means of 'points' accumulated by a salesman for each Philco product he sells, and in addition he receives 'lucky number' coupons entitling him to a 'chance' in drawings for new automobiles and substantial cash awards," the complaint stated.

Both the commission and the National Better Business Bureau claimed that the promotion violated Trade  
(Concluded on Page 4, Column 3)

**August Figures Show Rise  
In Apt. Range Shipments**

NEW YORK CITY—While shipments of apartment house type electric ranges rose from 8,441 in July to 12,592 in August, shipments of standard type ranges declined from 71,556 in July to 56,539 in August, the National Electrical Manufacturers Association has announced.

Dollar value of August shipments on standard and apartment type ranges are \$7,100,000 and \$817,000 respectively. For July they were \$8,800,000 and \$566,000 respectively.

Data was collected from 19 companies, the association said.



## Distributor Moves 1,100 Food Filled Freezers

LOS ANGELES—Enough frozen food to fill a 2½-cu. ft. home freezer is being given to customers here who purchase Philco home freezers.

The combination deal, engineered by Gough Industries, Inc., distributor, has cleared warehouse floors of 1,100 freezers since Oct. 11. Gough began with 500 5-cu. ft. and 700 2½-cu. ft. freezers. Only 100 of the smaller machines have yet to be picked up by dealers. The offer stands until an open stock of 1,200 freezers has reached customers' homes.

The 63¼ pounds of frozen vegetables and fruit are valued at \$26.26, retail. Gough delivers the load to a Philco purchaser's home charging the selling dealer \$8.28. Any machine ordered from the distributor after the Oct. 11 date is eligible for a filling. Freezers purchased before then and still on retail floors may be loaded with the food for \$14.28, the actual cost.

## May Co. In Denver Opens Appliance Repair Shop

DENVER—Entering the appliance repair field for the first time, the May Co., leading department store here, has opened a repair shop in its downtown warehouse.

Completely equipped to handle the rebuilding, repainting of all major appliances, the shop will not only serve as an asset in maintaining warranties, but will also take care of the rapidly growing trade-in problem.

"At the present time, we're advising our customers to sell their old refrigerators outright by running newspaper ads instead of trading them in," L. L. Reber, manager of the South Broadway separate appliance store, pointed out. "However, it won't be long before we will have to handle the reconditioned refrigerators ourselves. The late, like-new model refrigerators we intend to place for sale on our sales floor, but the older, less-attractive ones will be sold from a separate showroom at the back so that there will be no conflict."

## Vocational School Offers Appliance Sales Course

ATLANTA—Covering every segment of the electrical appliance field, a course in "Selling Electrical Appliances" is being taught by Bob Shelly of Bob Shelly's here, states John D. Sewell, supervisor of distributive education at the Smith Hughes Vocational School here.

The classes held at the Smith Hughes school each Thursday evening from 7 to 9 o'clock are being widely attended, Mr. Sewell said. The course has been broken down into 10 sections covering the following subjects:

Psychology of selling; display, presentation, arrangement, advertising and ethics; presenting small appliances; presenting vacuum cleaners and air conditioning; presenting gas and electric ranges; presenting water heaters and heating equipment; presenting home laundry and home laundry equipment; presenting refrigeration; and summary.

## Hydraulic Tail Gate on Appliance Truck Cuts Overtime Work, Saves Manpower

INDIANAPOLIS, Ind.—The use of the first of its new appliance delivery trucks, equipped with Anthony hydraulic tail gate lifts, has enabled Wm. H. Block Co. to step up deliveries from 5 to 10 more units a day than formerly.

At the same time, the addition of the new truck has reduced the amount of overtime necessary, has lessened the possibility of injury to workmen and has resulted in a definite saving in manpower and equipment.

Block's officials say that prior to use of hydraulic lifts, it was necessary to send all heavy refrigeration units by special delivery and with crews of from four to six men to load and unload. Now these units can be handled on regular delivery

with the usual two-man delivery crew, unless the unit is to be delivered above the ground floor.

Time to load and unload has been cut in half. Delivery crews that had heretofore required from 10 to 16 hours per week overtime have had a maximum of only four hours per week while delivering a greater number of units.

The company says the boost in morale of the men using this equipment has been well worth the additional cost. The truck is a 1947 Ford cab over engine, one and one half tons, with a 15-foot specially designed and custom-built body.

Other power equipment put into use during the last year by Block's store includes a Lewis-Shepard 3,000-lb. capacity electric combination loader and stacker. This is used at the main store to load and unload stoves, large refrigeration units, and heavy store fixtures.

A one-half ton Lewis-Shepard stacker in the warehouse at 11th and Meridian streets, will stack merchandise 12 to 14 ft. high and is practical for light or heavy material handling. It can be used in a 36-inch aisle and requires no physical changes for its use in the building.

## Fresh'nd-Aire Will Test Spot Promotion Tactics

CHICAGO—The Fresh'nd-Aire Co. here, manufacturer of "Fresh'nd-Aire" electric humidifiers and electric air circulators, has announced plans to test spot promotion tactics in introduction of the company's new model 600 Humidifier.

In the new campaign, Fresh'nd-Aire will stage intensive 3-day city-wide promotions to launch the new unit in each major marketing area. Plans include newspaper co-op advertising with local dealers and the supplying of advertising materials—mats—photos—mailing pieces—artwork—window streamers, etc., to local outlets plus the staging of a jobber salesman distribution contest. Company sales and advertising executives will assist the Fresh'nd-Aire field sales representatives in holding jobber meetings to fully explain campaign details.

The new humidifier model is the latest addition to the Fresh'nd-Aire line of electric air circulating equipment. The unit provides an over-all air humidification—filters, circulates, and washes the air. Dry air is drawn in past a filtering screen of water and blown gently out the top of the unit. An electric motor drives the fan which circulates the air.

A pump forces the water from the 3-gal. reservoir in the bottom of the unit up to and over the filter screen. Air being blown out of the humidifier is thus filtered, washed, and humidified and is free of smoke, dust, dirt, or pollen.

Initial city selected for a test promotion is Milwaukee. Details of additional cities to be covered in this introductory campaign will be announced in the near future.

## Jacobs' Loss In Fiscal Year Recovered In Two Months

DETROIT—Though the F. L. Jacobs Co., manufacturer of the Laundrell automatic laundry, reported a net loss of \$219,786 for the fiscal year ending July 31, that loss was more than offset by earnings made in August and September, Rex Jacobs, president, has announced.

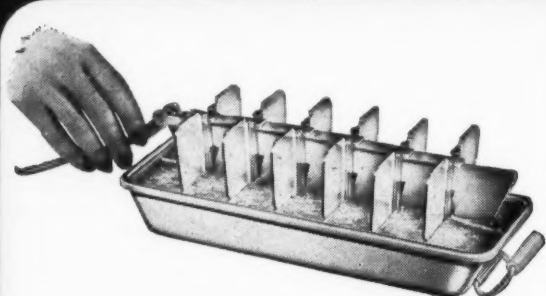
All divisions of the company are now operating profitably, he said in his annual report to stockholders. From all present indications, he added, the company's requirements for major capital expenditures have been completed.

The annual report for the company and its subsidiaries showed net sales for the 1947 fiscal year to be \$32,888,048 as compared with \$10,676,256 for the preceding year.

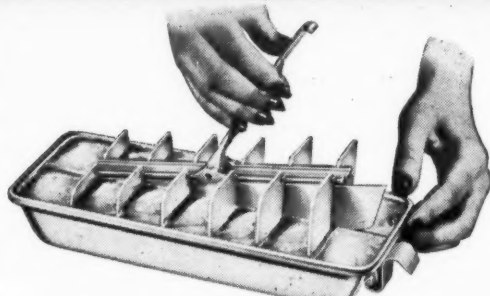
When \$150,003 in preferred dividends were added to the \$219,786 net loss, the firm had a \$369,789 deficit. This deficit was far below the \$1,652,113 of the preceding year.

The firm's balance sheet showed that Jacobs had increased its total assets during the year from \$13,212,314 to \$16,809,770. Inventory had grown from \$2,789,176 to \$4,522,329. Current liabilities, on the other hand, had been reduced from \$5,122,546 to \$4,359,044. Notes currently payable dropped from \$2,000,000 to \$950,000.

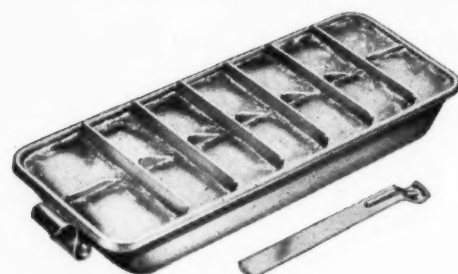
# INLAND Presents A Complete New Post-war Line of ICE CUBE TRAYS!



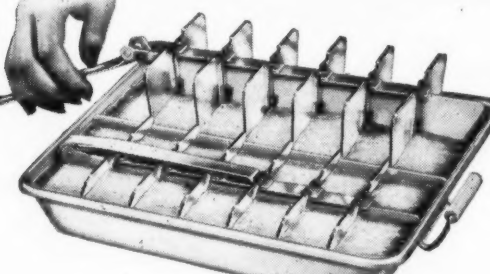
**SENSATIONAL NEW INLAND HANDI-CUBE TRAY.** Comes with sparkling blue, green clear plastic or aluminum grid partitions.



**STREAMLINED POST-WAR INLAND SHUCKER TRAY.** Combines extra-efficient operation with extraordinary durability.



**THE INEXPENSIVE INLAND TILT-OUT TRAY.** Low in price, high in service, this tray combines fast freezing, quick ice cube delivery.



**REMARKABLE NEW ALL-PURPOSE INLAND DESSERT TRAY.** With grids removed, it doubles as storage tray or dessert maker.

Here's a full line of ice trays that combines all the latest developments contributing to beauty, convenience and long life . . . that answers every need and every demand of refrigerator users from coast-to-coast.

Simpler, sturdier, more streamlined in construction, Inland's new Post-war ice cube trays bring you more eye appeal than

ever before with easier, quicker ice cube release and faster freezing. And remember, there's a new, improved Inland Post-war ice tray for every requirement and purse.

No wonder leading manufacturers of automatic refrigerators and dealers everywhere give first choice to this new Post-war line of Inland ice cube trays.

Write today for further details.

THE INLAND MANUFACTURING DIVISION, General Motors Corporation, Dayton, Ohio

more buy-appeal  
with  
**SHELVES** that have  
more eye-appeal



★ Shelves are the parts a prospect sees first when she looks inside a refrigerator, and uses most after she buys. Every bit of extra eye-appeal and convenience you can build into shelves pays off in extra sales. For over 40 years we have been building shelves that combine outstanding beauty and sturdiness. Today we are even better able to serve you than ever before, having just completed a million dollar plant addition. We can give you shelving to any specifications in quantities to meet your production schedules. Call or write today for details.



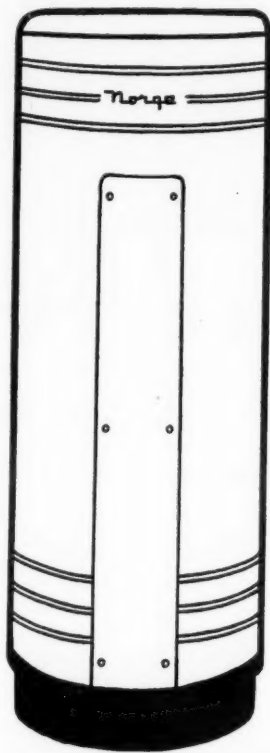
**DESIGN CONSULTATION SERVICE . . .**  
Take advantage of Union Steel's Design Consultation Service which frequently leads to a better shelf for less money.

**UNION STEEL PRODUCTS CO.**

531 Berrien St., Albion, Michigan • Telephone: Albion 147



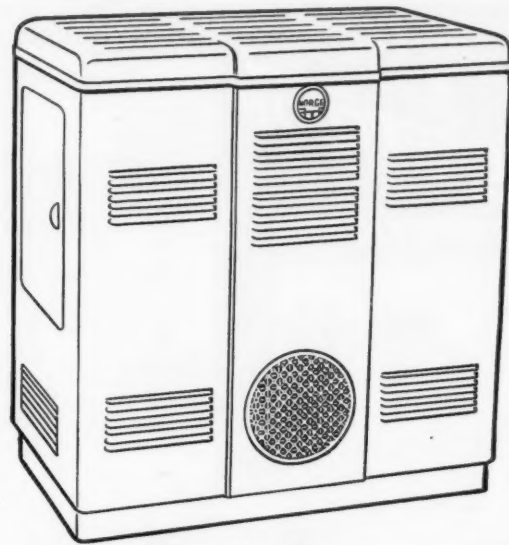


ELECTRIC  
WATER HEATERS

WASHERS



ELECTRIC RANGES



HOME HEATERS

# NORGE SUCCESS IS SEVEN-FOLD!

"The best dealer in town sells Norge"

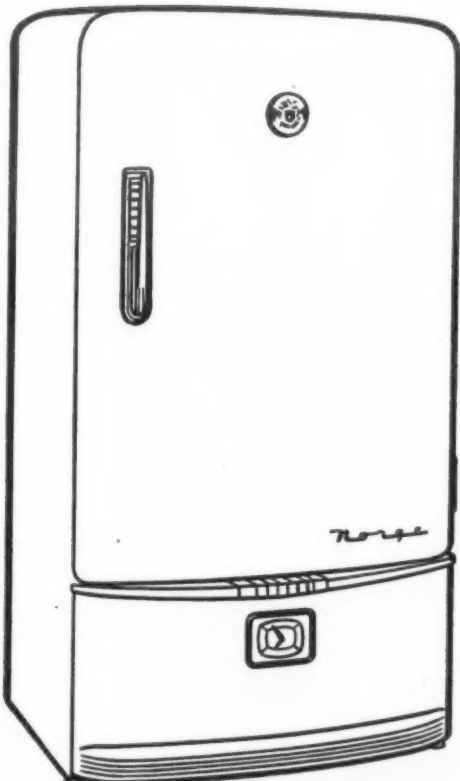
There are seven sleek, smart reasons for the success of Norge retailers—seven "personable" products that blanket the major appliance field and return big-ticket profits!

When a retailer makes an initial sale of a single Norge appliance, a profitable business relationship has just begun. One sale leads to many, for one Norge sells another. Every Norge retailer has many families that are completely Norge-equipped.

Norge retailers figure it like this: one product, one success; two products, two successes; SEVEN PRODUCTS—SEVEN SUCCESSES! Norge Division, Borg-Warner Corporation, Detroit 26, Michigan. In Canada: Addison Industries, Ltd., Toronto, Ontario.

HOME & FARM  
FREEZERS

GAS RANGES



REFRIGERATORS

Norge products, distributed worldwide, are typical examples of the values made possible by the American system of free enterprise.

Products of  
BORG-WARNER



SEE  
**NORGE**  
BEFORE YOU BUY





MODEL 4D  
MODEL 5D

Model 4D above is a 4 cu. ft. table top kitchen freezer and Model 5D is a 5 cu. ft. apartment table top electric refrigerator. Either may be built into a modern kitchen scheme as they are 35 inches high allowing a 1" linoleum top to extend over the refrigerator or they may be used "as is" in kitchens, apartments, under bars, rumpus rooms, etc. Model 4D freezer also may be

used as an ice cube maker. Fan cooled condenser requires no rear ventilation.

Model 13.5D is a popular 13½ cu. ft. 4 compartment upright freezer, exclusive in design, efficient and trouble free in operation. Other LOCKERATOR models manufactured: Freezer chests, domestic ice refrigerators, upright freezers. Also special models on large contracts.

All models in production. Total present production 150 per day. Hermetic nationally accepted condensing units—five-year guarantee—only recognized dealers and distributors—inquiries welcomed. LOCKERATORS are only sold in restricted territories.

**STODDARD MANUFACTURING COMPANY,**  
Mason City, Iowa

Continuous refrigerator production since 1939

## Philco Fights FTC--

(Concluded from Page 1, Column 5)

Practice Rule No. 8 which says that it is unfair for a radio manufacturer to give any bonuses to sales clerks handling two or more competitive brands of radios to induce the clerks to push sales of his products.

The FTC said that in so doing the company is in effect stifling and suppressing competition in the manufacture of radios and related products in interstate commerce.

It also results in a "general deception" of customers who are relying on the salesman to give them impartial advice on the merits of different brands, according to the complaint.

Philco's plan, the FTC alleges, causes salesmen to represent Philco products as the "best buys" and to be "reluctant" to show prospects other brands to the disparagement and detriment of those brands.

Awarding prizes at drawings constitutes a game of chance or lottery and is "contrary to public policy," according to the FTC.

James J. Carmine, vice president in charge of merchandising for Philco, declared, "These wild charges by the Federal Trade Commission are absolutely without foundation."

"If the FTC means what it says, it is attacking existing court decisions, selling methods in a wide variety of industries, and standard retail practices. The FTC is trying to take all the incentive out of selling."

"If they knew the facts the commission would realize that similar incentives to the Philco program are being offered by a great many companies in the radio, electrical appliance, and numerous fields."

## 'Allocations' Plan--

(Concluded from Page 1, Column 3)

refrigerator production cannot be increased. As a matter of fact we expect fewer refrigerators in November than last month. We will continue to allot refrigerators to dealers like we have in the past, without tie-in sales, and as fairly as possible. However, covering as large an area as we do, with so many dealers to supply, sometimes it is impossible to allot more than one refrigerator a month per dealer."

An indication of how tight steel supplies remain is in the fact that the "gray market" in steel is still striving. A trade journal reported that sales of cold-rolled material have recently been made at \$300 a ton, which it terms a new high.

Producers of steel have set records. September shipments of steel products brought the total for the first nine months of 1947 to 46,620,219 tons. This figure, according to the American Iron and Steel Institute, is more than the total for the 12 months of 1940.

But steel producers are currently warning that dangerously low supplies of scrap and coal are imperiling steel output.

Output of coal is said to be currently running at about 12½ million tons a week against an estimated demand for 13½ million tons.

## Wage-Hour Law--

(Concluded from Page 1, Column 3)

minimum salary as part of the exemption for employees under the executive, administrative, and professional categories.

Changes proposed by the Wage and Hour Division include substitution of "8 hours" for the "20%" previously used in all categories for the maximum amount of work performed each week by otherwise exempt employees which was the same as that work performed by non-exempt employees.

Other changes proposed call for the shifting of words in one classification of "administrative" employees [541.2 (b) (2)] from "responsible non-manual office or field work" to "responsible office or non-manual field work"; the dropping of the section exempting employees "engaged in transporting goods or passengers for hire . . ."; and a change in definition of "outside salesman" adding the term "services" to the phrase "obtaining orders or contracts for the use of facilities. . . ."

All persons wishing to be heard at the hearing should file a request with the Administrator, Wage and Hour Division, U. S. Department of Labor, Washington 25, D. C., not later than Nov. 20. Requests for hearings should give the following information:

Name and address of the person appearing; name and address of the persons or organizations he is representing, if any; branch of the industry; particular sections of regulation or amendments on which he proposes to testify; general nature and purpose of other suggested amendments.

## Directs Advertising



V. P. BLACK

Named advertising manager for Airtemp Division, Chrysler Corp.

## S. J. O'Brien Takes on Jahco Line of Motors

NEW YORK CITY—S. J. O'Brien Sales Corp., Frigidaire distributor here, has taken on the distributorship for Jack & Heintz electric motors, in fractional horsepower sizes ranging from ⅛ to ¾-hp. in range.

Henry J. Kieronski, motor sales manager for S. J. O'Brien, stated that new appointments of authorized dealers for the Jack & Heintz motor line are being made and a complete service and repair department is being maintained.

Orders are being filled in quantities from five to 100 motors, but manufacturing accounts requiring very large quantities are referred to the factory for handling.

## Canada Next To Ban Durables Imports?

OTTAWA—Faced with a severe shortage of U. S. dollars, Canada may slap curbs on imports of U. S. made goods, possibly including refrigerators, washers, radios, and vacuum cleaners, it has been indicated here.

Though no official action has been taken, the trend of government thinking, it is said, favors cutting down on certain "unnecessary" imports rather than devaluing the Canadian dollar.

Though the latter course is still being considered, it is felt in some quarters that devaluation would affect all goods, even those that Canada needs vitally for the preservation of her own industry. An import curb, on the other hand, would affect only goods the government selects.

The dollar crisis has risen from Canadian buying in the U. S. surpassing U. S. buying in Canada by about \$1,000,000,000 per year.



Once every 64 minutes, preceded by a deep-throated rumble and an earth-shaking growl, Old Faithful casts steam and boiling water toward the blue Wyoming sky. Its beauty and its regularity combine to make this geyser one of nature's greatest wonders. Visitors to Yellowstone National Park are awed and delighted by this natural clock which, within the memory of man, has not deviated from its self-regulated schedule.

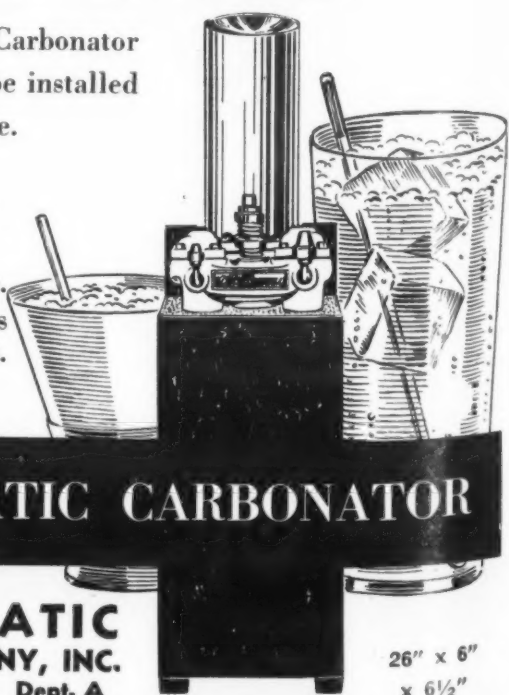
\* The kind of performance delivered by Mills Condensing Units.

*Mills Condensing Units*

Products of Mills Industries, Incorporated  
4100 Fullerton Avenue, Chicago 39, Illinois

## bubbles without troubles for a lifetime

- the only Motorless Carbonator that does not have to be installed in a refrigerated space.
- only Lifetime Service Agreement.
- not a delicate machine.
- more carbonator sales to bars and fountains.
- ask for a franchise!



**PREST-O-MATIC CARBONATOR**

**PREST-O-MATIC**  
PRODUCTS COMPANY, INC.  
315 Beaubien Street Dept. A  
DETROIT 26, MICHIGAN

Branch: 3902 East Cooper, Tucson, Arizona

26" x 6"  
x 6½"



*Again ALCO pioneers!*

# ALCO 732<sup>1</sup> SNAP-ACTION SUCTION VALVE



**FOR USE ON:**

DRINKING WATER COOLERS  
BEVERAGE COOLERS  
TWO-TEMPERATURE APPLICATIONS  
SUCH AS:  
DISPLAY CASES  
VEGETABLE STORAGE  
SODA FOUNTAINS  
AND MANY OTHERS REQUIRING  
ACCURATE TEMPERATURE CONTROL

- ▶ Complete control in one compact, economical device—directly responsive to actual load temperature.
- ▶ Easy-to-set adjustment dial (calibrated in 1° graduations) provides precise control from 20° to 50° F. Operates on only 2° differential.
- ▶ Automatic defrost on "off" cycle for load temperatures above freezing. Liquid charged—mount it anywhere.
- ▶ Direct temperature control—eliminates the inconvenience and expense of electrical connections—saves time and trouble. No accessories needed.

Available now at your wholesaler's. Ask for Bulletin 732.

*Thousands already in use!*



Designers and Manufacturers  
of Thermostatic Expansion  
Valves; Pressure Regulating  
Valves; Solenoid Valves;  
Float Valves; Float Switches.

## ALCO VALVE CO.

853 KINGSLAND AVE. • ST. LOUIS 5, MO.

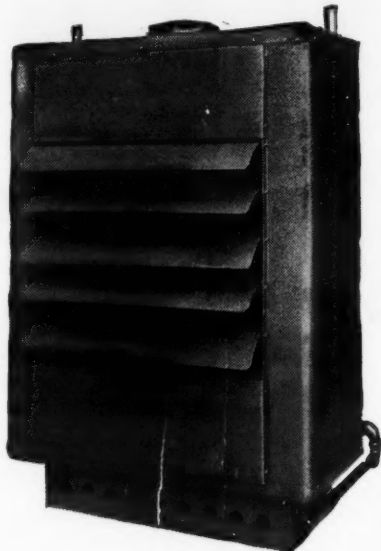


# SUSPENDED GAS UNIT HEATERS

85—25—165 BTU capacity.  
Delivery within 3 or 4 days.

This is a union manufactured  
Product.

Some exclusive territories are  
available.



We also manufacture a combination heating and cooling unit, gas  
fired furnace and the NAT "Self-Contained" Air conditioning unit.

## THE NAT CORPORATION

2710 McGee Trafficway Kansas City 8, Mo.

## INSIDE DOPE

by GEORGE F. TAUBENECK

(Concluded from Page 1, Column 1)  
day, and to earn future rewards?  
Answer: it can't, yet.

Cyclical prediction is still far from  
being even a reasonably exact science.  
It's in its infancy; and the overcon-  
fident predictions of those who sup-  
port its premises must be discounted  
heavily.

When we agree that certain long-  
term trends in basic industries, in  
the interstices of industrial econ-  
omics, and in political history seem  
to overlap, intertwine, and happen  
again during an inadequately evalu-  
ated time-lapse, we are presuming  
that these recurrent curves will con-  
tinue to reassert themselves in the  
future—if we are disciples of the  
Religion of Cycles.

Actually, the data now at the dis-  
posal of the Cyclical Predictors is  
merely interesting, rather than  
determinative.

To be truthful, the emotional and  
biological factors which drive men  
to do things or not to do them are so  
diverse and so poorly tabulated that  
the avowedly "pure" scientist who is  
intrigued by the Theory of Cycles  
throws up his hands in despair when  
he finds that his beautiful theories  
are caught in the maelstrom of im-  
placable events.

The more he studies his trend re-  
ports, the more ready he is to believe  
that so-called "intelligent" planning  
and forecasting seems impossible at  
this stage of the game. He just

doesn't have enough evidence to  
support his postulations.

After a very slow start, the Dewey-  
Dakin treatise on "Cycles" has begun  
to sell very well in many of the  
major cities of the United States.

The unexpected readership of this  
book worries some executives we  
know—because this tome predicts  
that America's economic activity  
will slow down and drop down until  
it touches a mild "bottom" in the  
year 1952.

Realizing that recessions and de-  
pressions are primarily psychological  
phenomena, some of America's "top  
minds" uneasily feel that the popu-  
larity of this book is bad news for  
business, and for the continued exist-  
ence of our free enterprise system.

If too many people are led to be-  
lieve that an economic reverse is  
inevitable, an unnecessary depression  
will take place, they feel.

Maybe so.  
Possibly this book on "Cycles—  
the Science of Prediction"—will  
thwart and inhibit and discourage  
the nation's promoters, speculators,  
optimists, and take-a-chancers.

In rebuttal, however, the skeptic  
can say that Cycle-worship is still  
somewhat akin to astrology; and that  
all recorded data on economic  
rhythms are still inconclusive.

Furthermore, today's shifting  
values (of money, of stocks, of  
bonds, of real estate, and of human  
behavior) might render worthless the  
attempts of any cyclical expert to  
"hedge" on his investments or on  
his predictions of things-to-come.

And finally, the unregenerated  
optimist can look at all the charts  
and graphs presented by the  
Cyclical Engineers and say:

"In 1952, if the Priests of Cycles  
are right, every indicator begins to  
point upward again—and for a long  
time, too. If we can manage to  
survive the intervening years between  
now and then with patience and  
optimism, we'll progress, earn more,  
and live better lives than any of our  
ancestors have ever enjoyed before."

Don't let the Dewey-Dakin book  
get you down. America is still the  
Land of Opportunity.

### Nothing New Under the Sun

Benjamin Franklin wrote a letter  
which can be applied to our most  
pressing Problem-of-the-Day (rising  
prices) during his uneasy tenure as  
America's Ambassador to France.  
His pertinent letter to one of his  
daughters follows:

June 3, 1779

Dear Sarah:

When I began to read your account  
of the high prices of goods, "a pair  
of gloves seven dollars, a yard of  
common gauze twenty-four dollars,  
and that it now required a fortune  
to maintain a family in a very plain  
way," I expected you would con-  
clude with telling me, that every-  
body as well as yourself was grown  
frugal and industrious; and I could  
scarce believe my eyes in reading  
forward, that "there never was so  
much dressing and pleasure going  
on," and that you yourself wanted  
"black pins and feathers" from  
France to appear, I suppose, in the  
mode!

This leads me to imagine, that  
perhaps it is not so much that the  
goods are grown dear, as that the  
money is grown cheap, as every-  
thing else will do when excessively  
plenty; and that people are still as  
easy nearly in their circumstances  
as when a pair of gloves might be  
had for half a crown. The war in-  
deed may in some degree raise the  
prices of goods, and the high taxes  
which are necessary to support the  
war may make our frugality neces-  
sary; and, as I am always preaching  
that doctrine, I cannot in conscience  
or in decency encourage the contrary,  
by my example, in furnishing my  
children with foolish modes and lux-  
uries. I therefore send all the  
articles you desire that are useful  
and necessary, and omit the rest.

B. FRANKLIN.

### Is the North Pole Warm?

If you are fascinated by what goes  
on at 450 degrees or more below  
zero, and what good can come of it,  
Dr. Aaron Wexler is the man to see.

Dr. Wexler, who works for West-  
inghouse, is busy these days produc-  
ing such temperatures—the lowest on  
record—by changing gaseous helium  
to the liquid form. This transforma-  
tion causes the mercury to retreat  
downward some 520 degrees.

This pure scientist is trying to find  
out what happens to metals in this  
super-charged cold atmosphere, and  
whether or not anything useful can  
result from getting that far down  
into the throat of the thermometer.

He has already discovered that  
some peculiar things happen to cer-  
tain metals when they are exposed  
to intense cold.

For instance, he reports that under  
such circumstances a metal ring does  
not act at all like a normal ring  
should: it offers no resistance to  
electrical current. And, strangely,  
the current will continue to flow even  
after its source has been removed.

Dr. Wexler is a man to be watched.

Tel. 62366

Should you be in Montreal one of  
these days in search of David S.  
Greenberg and he isn't in his office  
at the A. C. Electric Refrigeration  
Co., try dialing the telephone num-  
ber 62366.

If Dave is driving his car any-  
where in or near the city, you'll get  
an answer. That's the number of  
the Mobile Radio-Telephone Com-  
munication set in Dave's automobile.

It works just like the radiophones  
described in a previous edition of the  
NEWS which enable the servicemen  
of Arctic Refrigeration Co. in Mil-  
waukee to average 10 calls in a nine-  
hour day. Dave is planning the same  
kind of set up.

"We expect to have our fleet of  
service trucks and cars equipped with  
this Bell Telephone equipment, which  
will not only enable our engineers  
to contact the office or vice versa,  
but also allow them to contact the  
customer and prevent useless calls  
when nobody is home," he writes.

Dave's use of this equipment has  
already made news. He is credited  
by Montreal newspapers with being  
the first person to make a plane  
reservation with Trans-Canada Air  
Lines over an automobile telephone.  
It happened like this, according to a  
report in the *Standard*:

Dave was driving around in Mon-  
treal one night when he suddenly  
remembered he had some business  
to transact in Toronto. Turning his  
car in the direction of the airport, he  
picked up the phone and called the  
air line office. Could he get a  
reservation?

"We'll phone you back as soon as  
we can confirm the reservation," a  
voice answered. "Where can we reach  
you?"

"Phone me in my car," Dave re-  
plied. "The number is 62366."

When Dave was only a few blocks  
nearer the airport, the phone rang.

"Your reservation has been con-  
firmed on TCA Flight 49 for Toron-  
to," the voice said.

Dave continued on his way to the  
airport.

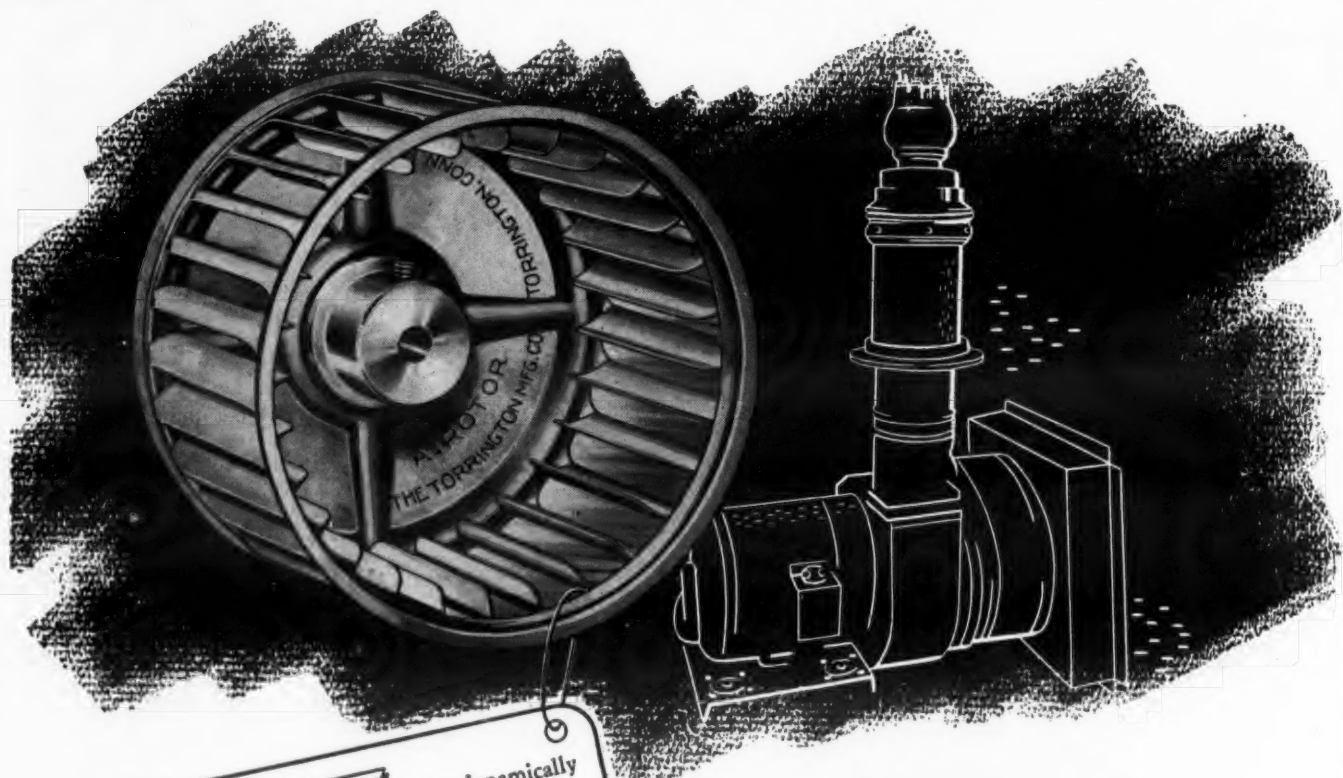
### Chain Letter Fun

Most chain letters nauseate us, and  
are wastebasketed promptly. But this  
one was kinda funny:

"This chain letter was started in  
Reno in hopes of bringing happiness  
to tired business and professional  
men. Unlike most chain letters, this  
one does not cost any money. Simply  
send a copy to five male friends, then  
bundle up your wife and send her  
to the fellow on top of the list.

"When your name comes to the  
top of the list you will receive 16,178  
women. Have faith—Do not break  
this chain! One man broke it and  
got his own wife back."

## RIGHT... from the start



TORRINGTON

*Verified* AIR IMPELLERS

Can FREE You from Headaches,  
Expense and Delays when  
using Forced Air

This is a simple, short case history. Its very  
simplicity makes it important to you. A manufacturer  
designing a line of precision blowers for large radio  
transmitting tubes was faced with the problem of  
supplying very exact quantities of air at exact static  
pressures recommended for a variety of these tubes.

He consulted Torrington early in his planning.  
Suitably designed housings and the proper Airotor  
Blower Wheels were recommended. Right from the

start, the completed units worked well. In this instance,  
there were present none of the expensive, exasperat-  
ing problems of too little air, too much noise, redesign  
delays, etc., that so often plague a manufacturer when  
applying forced air.

So we urge you to consult Torrington while your  
product is in the early stages of design... and thus  
profit from all the benefits that Torrington Air  
Impellers offer.



THE **TORRINGTON**  
MANUFACTURING COMPANY, TORRINGTON, CONNECTICUT

AIRISTOCRAT FAN BLADES • AIROTOR BLOWER WHEELS • IMPROVE PRODUCT PERFORMANCE



Helpful...

You will find the CHASE catalog  
helpful in many ways. Saves time—  
places useful buying information at  
your finger tips—and carries list prices  
to protect your profits.

Send for copy on your letterhead.

CHASE REFRIGERATION SUPPLY CO.  
546 West 119th Street Chicago 28, Ill.



## HERE'S YOUR MARKET

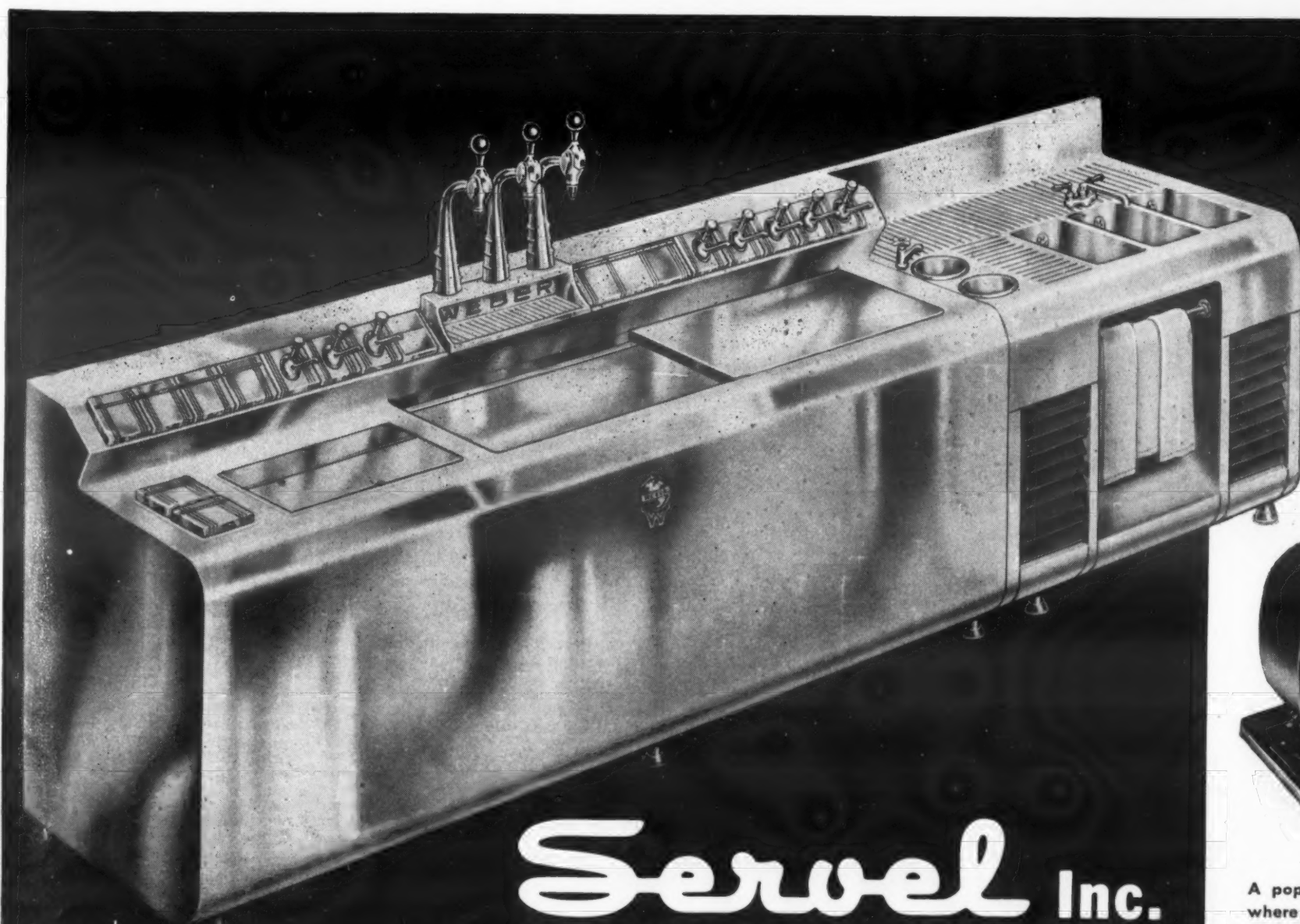
# Sales are soaring at soda fountains

SINCE the first American tried mixing ice cream and charged water along about 1850, the soda fountain business has grown to be one of America's big industries. Boys and girls, old and young, spend millions of dollars per year on the cokes, sodas, sundaes, and milk shakes dispensed at the corner drugstore.

Today a soda fountain of some type is standard equipment in practically every establishment where food or drink is served. The drugstore now competes in this field with hotels, restaurants, clubs, roadside stands, and hundreds of other places that have found it profitable to cater to the thirst and appetite of the public. This type

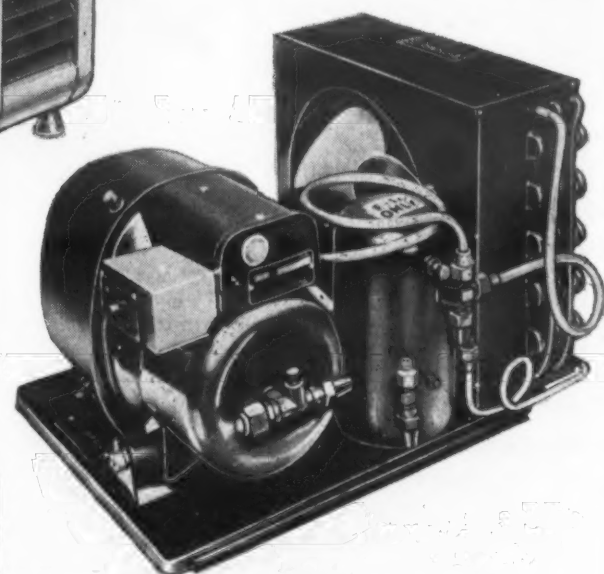
of establishment offers an opportunity for new business to the alert dealer. And in addition, there are thousands of old-style, inefficient fountains which need replacement in whole or in part.

With the fast-moving trend toward multiple units, with one condensing unit for ice cream, another for cooling water and soda, a third for bottle storage and luncheon products, Servel Supermetic is a "natural" for this market. Its compactness solves the problem of economy of floor space. The efficiency and trouble-free operation of the Servel Supermetic insure continuity of service in a field where success depends on serving the public seven days a week.



**Servel Inc.**  
ELECTRIC REFRIGERATION DIVISION, EVANSVILLE 20, INDIANA

**ILLUSTRATION** of the 63-gallon Roll-A-Door fountain by courtesy of the Weber Showcase and Fixture Company, Inc., 5700 Avalon Blvd., Los Angeles, Calif., specialists in quality refrigeration since 1898. The Electric Refrigeration Division of Servel, Inc., manufactures only condensing units. These are available through prominent distributors and fixture manufacturers in all sections of the country.



A popular size of Servel Supermetic for fountains where the demand on soda and water is heavy. Eight other fractional HP models in both high and low temperature types cover every possible fountain requirement.



## West Coast Dealer Allows Only Old Customers On Waiting List and Sets No Delivery Date

FRESNO, Calif.—Old customers, and old customers only, can put deposits down on scarce home appliances at the Chicago Furniture Co. here, according to Cy Darbinian of the store.

"These people deserve first consideration simply because they've been loyal to us for 10 years or more," Mr. Darbinian explained.

"During the autumn we have offered everyone on our old customer list an opportunity to come in and sign up for whatever home appliance they need.

"All such orders are written entirely as the result of an invitation by personal letter or telephone call. We are refusing to do anything of the kind for the casual visitor to the store.

"We explain that it's entirely a plan based on friendship and long business relations—something the average customer appreciates from the start."

Mr. Darbinian pointed out that the store rejected the idea of allowing any customer to register for an appliance without a deposit. "There is nothing to prevent any such customer from making the same arrangements at 20 other stores. But once a token payment is made we're reasonably sure that she means business," he declared.

Deposits range anywhere from \$10 to \$100, as no set amount has been stipulated. On the basis of the deposit, the store writes up a standard sales order, which is filed with a notation of the deposit and given a delivery number.

"We promise no delivery dates whatsoever," Mr. Darbinian explained, "because this is largely problematical. Each customer understands this factor thoroughly, but feels that we'll do our best to deliver."

"I feel that this system is the only logical means of protecting both our old customers and ourselves with the minimum amount of ill-will."

## Dept. Store Sales Rise Tho Most Areas Decline

WASHINGTON, D. C.—Department store sales rose 2% for the week of Oct. 18 over the corresponding week last year in spite of the fact that most cities showed a decline.

Reason for the 2% gain was given as the 23% increase in sales in New York City. Philadelphia was up 1% and St. Louis and San Francisco reported no change.

Seven of the Federal Reserve districts reported losses. The districts and their losses are given below:

| District    | Percentage Loss |
|-------------|-----------------|
| Boston      | 14              |
| Cleveland   | 1               |
| Richmond    | 4               |
| Atlanta     | 5               |
| Chicago     | 1               |
| Kansas City | 3               |
| Dallas      | 2               |

The Federal Reserve Board weekly index without seasonal adjustment for the week of Oct. 18 was 299, compared to 295 for last year.

## Wheeler and McCarty Get Top RCAC Offices As Incumbents Resign

CHICAGO—Because of the resignation of L. C. Anderson, first president of the Refrigeration Contractors Association of Chicago, and L. C. Kohlman, vice president, two members were selected by the board of directors at the group's October meeting to finish the unexpired terms.

H. E. Wheeler, of Air Comfort Corp., Chicago, was named president and Walter McCarty, of McCarty Bros. Equipment Corp., River Forest, Ill., vice president.

George T. Howe, of Accurate Electric Refrigeration Service, Chicago, is secretary-treasurer of the association. Directors, all of Chicago, are H. O. Miller, Murphy & Miller, Inc.; A. G. Weil, Refrigeration Maintenance Corp.; Lawrence Sundberg, C. E. Sundberg Co.; Alphonse Gerat, A. G. Refrigeration Sales & Service; T. J. Reedy, North Town Refrigeration Corp.; and T. C. Johnsen, Johnsen Refrigeration Co.

## Kalamazoo Stove Reports 9-Month Net of \$225,116

KALAMAZOO, Mich.—Kalamazoo Stove & Furnace Co. has reported a net profit of \$225,116 for the nine months ended Sept. 30. This is equal to 75 cents per share on the company's 300,000 capital shares.

A loss of \$290,634, after tax carry-back credit, was recorded for the same period of 1946.

## NRFA Slide Film Points Up Small Margins Cleared on Retail Furniture Store Sales

### Outlet Nets only \$2 per \$100 In Retail Sales

NEW YORK CITY—For every \$100 worth of furniture sold at retail, the home goods store nets only \$2 in profit, according to a study just completed by the National Retail Furniture Association and incorporated in a special sound slide film entitled, "Furniture Futures, Looking Back So You Can Plan Ahead," which was shown for the first time at the Eastern Regional Conference at the Roosevelt hotel in New York City, Oct. 23.

The film graphically depicts the low margin on which furniture stores operate and illustrates the many and varied services that every home goods merchant is called upon to perform.

The film takes \$100 worth of furniture as a typical example and traces every transaction, from the time the store buyer places the original order at one of the furniture markets to the time it is delivered to the customer's home. Every operation is described and the cost involved analyzed.

The plot of the film revolves around a store employee, John Smith, head of the shipping department, and his desire to learn what the future holds for him as a furniture store employee. He goes directly to the boss, the store owner, and asks him bluntly. The merchant takes him into his confidence, explains in detail how a furniture store operates and what the future prospects are.

"In budgeting my costs for the coming year," the owner tells him, "I've been going back into past records for my guide, analyzing the cost figures and the reasons why. As a start in our planning, this 10-year average should be a good measuring stick."

(He uses the NRFA 10-year study of operating costs as a basis. It covers the five prewar years to 1940 and the five war years ending in 1945. That leaves out the depths of the depression as well as the postwar boom.)

In spite of the low margin, the store owner tells Smith that the store has three aces in the hole at the present time:

1. Sufficient capital to earn a cash discount by paying bills quickly and

the profit resulting from installment sales.

2. A strong consumer demand for home goods for some time to come; more marriages and babies every year; more apartment houses and homes.

3. Conscientious employees who take a share of the responsibility; salesmen who work hard to keep up volume, and "all of you here who work to keep down costs."

The film reveals the following estimated furniture store expenses on each \$100 of retail sales:

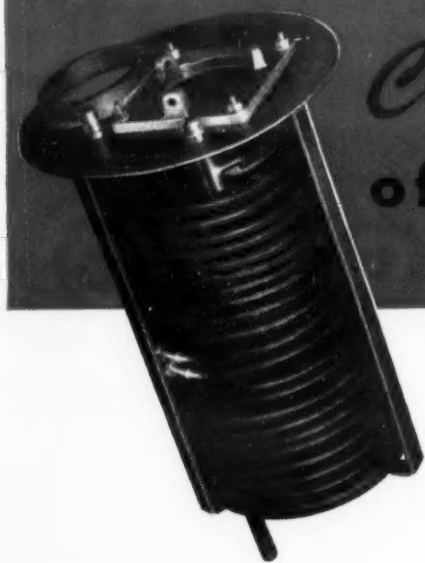
|   |         |
|---|---------|
| Average past direct credit losses (bad accounts, loss on repossession, interest paid on the money to finance outstanding accounts receivable) | \$ 2.00 |
| Delivery costs  | 3.00    |
| Market costs (trips to markets and factories)   | 1.00    |
| Freight charges (from the factory to the store)   | 3.00    |
| Handling costs (unloading, unpacking, inspecting, cleaning, and polishing)  | 3.00    |
| Wholesale cost of furniture   | 54.00   |
| Administration and management (buyers, office help, supplies, telephones, office services, insurance)   | 9.00    |
| Occupancy costs (rent, heat, light, repairs, janitors)  | 7.00    |
| Advertising costs (newspaper, direct mail, billboards, radio, window ads, materials, space, salaries and wages for ad dept.)                  | 4.00    |
| Selling costs   | 7.00    |
| Miscellaneous costs   | 2.00    |
| Interest on investment  | 1.00    |
| Present taxes   | 2.00    |
| Profit  | 2.00    |

## Rheem Nets \$2,694,025 For Three Quarters

LOS ANGELES—Rheem Mfg. Co. here has reported a net income of \$2,694,025, or \$2.60 per share for the first nine months of 1947. This compares with a net income of \$22,923 or 76 cents per share for the same period of 1946.

Net sales for the first three quarters of this year were \$44,593,000 compared to \$24,736,000 for the same 1946 period.

Third quarter figures were: net income \$629,101, earned per share 60 cents, and net sales \$14,793,000, according to the report.



*Compactness AND Efficiency*  
**of WOLVERINE TRUFIN**  
helped to make this PRESHON  
Cleaning and Degreasing Machine  
outstanding in performance

The Preshon Unit is a portable, cleaning device for removing paint, tar, grease, and other foreign substances from automobiles, farm equipment, buildings, etc.

Within its attractive housing is a heat exchanger made up of about 60 feet of Wolverine Trufin—THE integral finned tube—in the form of a compact coil. The Trufin coil replaced 200 feet of plain copper tubing formerly used in the unit, resulting in a great gain in operating efficiency, plus a gain in compactness.

The unit is capable of delivering 2½ gallons of 180°F water per minute, or up to 1½ gallons wet saturated steam per minute at a very low operating cost. Not only can Wolverine Trufin be subjected to such intense heat without damage but it will operate efficiently under those conditions—another qualification for THE integral finned tube.

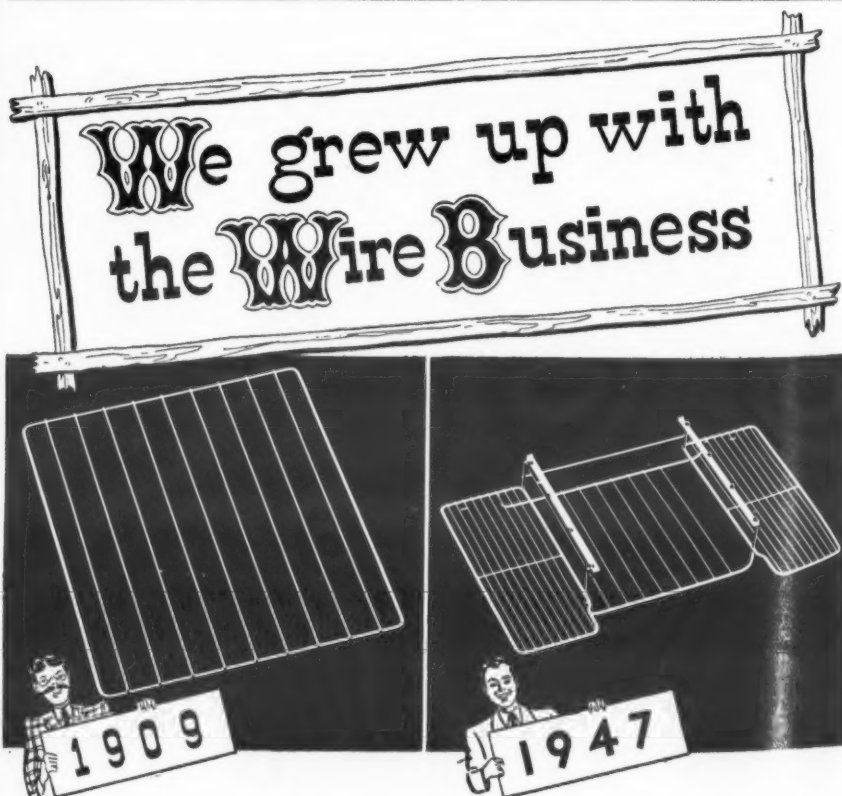
This application—one of many from our customers' engineering files—demonstrates the widening uses of Wolverine Trufin. Perhaps your product can be more compact and made to operate more efficiently through the introduction of Trufin. Would you like to discuss the possibilities with our engineers?

## WOLVERINE TUBE DIVISION

CALUMET & HECLA CONSOLIDATED COPPER COMPANY

MANUFACTURERS OF SEAMLESS COPPER & BRASS TUBING

1411 CENTRAL AVENUE • DETROIT 9, MICHIGAN



It was back in 1909 that the first welded wire shelves were produced for home appliances, here at United. They were crude by today's standards, largely hand made, and produced in small lots.

Now in a single week we build as many shelves, baskets, racks and other assemblies, as we did in a whole year back in 1909. To do this we have acquired a great deal of experience, knowledge and modern high speed machinery. Some of this

machinery had to be designed and built here in order to accomplish the tasks of our particular business. The development of this "know how" enables us to produce for you, the most complicated welded wire parts in quantities by the millions with a precision that will meet your requirements. And we can produce them for you at a fraction of what the cost would have been in 1909.

If you require welded wire or wire and steel parts, check with United first!



**UNITED STEEL AND WIRE CO.**  
BATTLE CREEK, MICHIGAN



## Fair-Traded Goods Check Shows Price of Majority Down or Same In Year

Report to Govt. Group Denies Mfrs. Urged Price Gouging

NEW YORK CITY — Supplementing the testimony of its president, John W. Anderson, on Oct. 3 at the hearings of the Mid-Continent Subcommittee of the Joint Congressional Committee on the Economic Report, the American Fair Trade Council has filed with the Committee a report of a cross-sectional sampling of 21 industries to determine the reactions to inflationary pressure of Fair-Traded products of those specific industries.

There were 1,235 Fair Trade retail prices reported. Of that number only 356 showed any increase. The average of their increases was 23.0%. An average decrease of 21.3% was shown by 116 of the Fair Trade prices reported. Out of the 1,235 Fair Trade retail prices, 763 were unchanged.

### DON'T DARE CHARGE MORE

The Council points out that, as to all those Fair Trade retail prices, 71% either have decreased or have remained unchanged throughout the period covered by the survey, which was from April 1, 1946, to May 15, 1947.

In its supplementary report the Council discusses testimony of witnesses adverse to Fair Trade, in which it was charged that certain manufacturers of Fair-Traded products had encouraged extortionate pricing of those products by retail sellers.

It is the contention of the Council that, since the Fair Trade retail price of a product becomes well known to all retailers of that product, and becomes equally familiar to the public, almost no retailers ever dare charge more than the Fair Trade price.

The Council goes on in its report to say:

### OFFENDERS IN ALL WALKS

"Among manufacturers Fair-Trading their products there may be here and there one willing to resort to deceptive methods unfair to the public. We find such offenders in all walks and fields. It is respectfully pointed out, however, that identical practices could be, and perhaps are, more readily practiced as applying to products not under Fair Trade and not therefore having established a definite resale price known and followed widely throughout the retail trade and therefore familiar to the public.

"It is a common practice of opponents of Fair Trade to represent, at least by implication, that irregular pricing which they claim is encouraged by some manufacturers of Fair-Traded products, could not, or would not, be present in the absence of Fair Trade.

"A close examination of any unfair pricing, however, we believe will disclose to your Committee invariably that the same pricing methods could be and are followed on products not under Fair Trade—and that Fair Trade neither promotes nor induces such pricing but rather restrains it.

"And may we again point out that horizontal pricing by competitive manufacturers in collusion is a criminal offense against Federal law and is forbidden by all state Fair Trade Acts."

### SEES ANTI-FAIR TRADE PLOT

"It is respectfully suggested that your Committee has before it an unusual opportunity for public service by determining, and publicizing, skillfully obscured facts about Fair Trade and its sound contributions to public welfare and to the stability of our national economy."

The Council, a cross-sectional organization of Fair Trading manufacturers in all areas, meets Nov. 13 at the Waldorf-Astoria Hotel in New York to plan its further defenses against what it contends is a heavily financed campaign of retail monopolists organized to destroy Fair Trade and thus expose consumers to quality deteriorations and low values which result from unrestrained predatory loss-leader pricing.



**THE ONLY COMBINATION  
FOOD AND BEVERAGE  
COOLER THAT CAN BE  
OPERATED WET OR DRY**

## THE NEW ARTKRAFT BEV-FOOD

**AT ONLY \$385 RETAIL (f.o.b. factory) IT OFFERS THE LOWEST COST  
PER CUBIC FOOT USABLE REFRIGERATION SPACE IN THIS SIZE RANGE**

**A high quality, self-contained 'plug-in' unit.  
Each compartment can be used entirely for dry refrigeration.  
Top opening prevents spill-out of cold.**

### IDEAL FOR:

RESTAURANTS  
ROADSIDE STANDS  
DAIRY STORES  
HOTELS  
TAVERNS  
FISH MARKETS  
FACTORY  
CAFETERIAS  
HOSPITALS  
SODA FOUNTAINS  
BOWLING ALLEYS  
MEAT MARKETS  
DELICATESSENS  
CANDY STORES  
DRUG STORES

### SPECIFICATIONS:

Sealed cabinet: 65 $\frac{3}{8}$ " x 38" x 29 $\frac{1}{2}$ ".  
Solid 3" insulation—Vermin-proof.  
Top compartment: 35 $\frac{3}{4}$ " high x 20 $\frac{3}{4}$ " wide x 15 $\frac{1}{2}$ " deep. (Slightly over 6 $\frac{1}{2}$  cu. ft.)  
Food compartment: 21 $\frac{1}{4}$ " wide x 28 $\frac{3}{8}$ " high x 20 $\frac{3}{4}$ " deep. Slightly over 7 $\frac{1}{2}$  cu. ft.)  
Total storage capacity: 14 cu. ft.  
Finish: Exterior—Silver blue.  
Interior—Porcelain enamel.  
Top and 2 sliding covers, stainless steel.  
Condensing Unit:  $\frac{1}{4}$  H.P., twin-cylinder air cooled. Equipped with Tecumseh, Universal Cooler, or Copeland unit.  
Motor:  $\frac{1}{4}$  H.P., 60 cycle, single phase, 1750 r.p.m., 110 volts, capacitor type.  
Refrigerant: F-12 Freon.  
Automatic light in food compartment.  
8-point cold control.

### DEALERS:

Ask your distributor for this great profit-maker—or write us for his name. Distributed in many areas by G.E. Supply Corp.

### DISTRIBUTORS:

Write for details of franchise for open territory.

THIS COUPON FOR YOUR CONVENIENCE

THE ARTKRAFT MANUFACTURING CORPORATION  
200 KIBBY ST., LIMA, OHIO, U.S.A.

- ☐ Please send the name of the BEV-FOOD distributor in this territory.  
☐ Please send details of distributors' franchise.

NAME.....

FIRM.....

CITY.....

**The  
Artkraft Manufacturing Corp.**

Quality Products for more than a Quarter of a Century

200 KIBBY ST., LIMA, OHIO, U.S.A.



## Explorer-Naturalists Will Use Special Gasoline-Powered Mobile Refrigerators To Store Film, Serum on Expedition

SMYRNA, Del.—Modern refrigeration in the form of mobile units will penetrate the equatorial African jungles and Liberian Desert this winter.

Refrigeration's new, novel role became known recently when it was revealed that two specially built, gasoline powered refrigerators have been completed here at the plant of Wilson Refrigeration, Inc., for the Philadelphia Academy of Natural Sciences scientific expedition which will collect and photograph rare fish, birds, and animals.

The compact units were inspected by William K. Carpenter, famous explorer and naturalist of Wilmington, Del., who will head the eight months expedition in conjunction with Harold Green, curator of the academy's museum. Mr. Carpenter said the refrigerators will be used to store the expedition's precious film and to protect it from the intense tropical heat and moisture.

It was explained that color film particularly is susceptible to temperature deterioration. The unit will also carry the expedition's serums and medicines.

"The purpose of the expedition is to collect scientific data and specimens such as fish, birds, and animals," said Mr. Carpenter during his visit to the Wilson plant to inspect the finished refrigerators. "They should do much to cut down the loss of valuable film."

The refrigerators have been designed to hold temperatures of ap-

A. A. Davis (left), vice president of Wilson Refrigeration, Inc., gives W. K. Carpenter a look at one of the firm's specially-built, gasoline-powered, mobile refrigerators that the noted explorer-naturalist will be using on his trek into Africa.



proximately 50° for four or five hours after refrigeration has been cut off, according to John E. Wilson, Jr., president of the Wilson company. This will make it unnecessary to run the condensing unit during periods of moving, it was explained.

Mr. Carpenter, and Mr. Green, who will be in charge of the scientific work of the expedition, are now assembling the equipment for the

trek which will follow a path roughly along the equator from Nairobi, Kenya, East Africa, through the Belgian Congo, French Equatorial Africa, and the Sahara Desert into Liberia. They will return across the Sahara to the Sudan, following the Nile back to Uganda, then back to Nairobi, covering a total distance of approximately 25,000 miles, it was indicated.

## ASRE Releases Tentative Program of 43rd Annual Meeting Opening Dec. 7 In East

ATLANTIC CITY, N. J.—For its forty-third annual meeting to be held at the Hotel Traymore here Dec. 7 through 10, the American Society of Refrigerating Engineers has mapped out a tentative program that includes 12 technical papers, luncheon, beer and skittles party, and the annual cocktail party and dinner-dance.

First technical session is scheduled for 10 a.m. Monday, Dec. 8, but there will be advance registration, several committee meetings, and a reception sponsored by the Philadelphia section on Sunday.

Broad aspects of refrigeration dealing both with applications and design problems will be covered by the various technical papers. Among the topics already programmed are "Technical Factors in Greenhouse Air Conditioning," "Modern Handling Methods in Refrigerated Storage," "Mechanical Developments in Marine Refrigeration," "Applications of Refrigeration to Concrete Dams" and others.

The tentative program follows:

### SUNDAY, DEC. 7

12 noon—Advance registration, finance committee meeting, constitution committee meeting.

1 p.m.—Sections committee luncheon-meeting, executive committee meeting.

5:30 p.m.—Reception, Philadelphia section, host.

7 p.m.—Council dinner-meeting.

### MONDAY, DEC. 8

9 a.m.—Advance registration.

10 a.m.—First technical session, President Roland H. Money, presiding.

"Graphical Aids to the Solution of Ammonia Absorption Systems Problems," A. B. Stickney, Armour & Co.

"Technical Factors in Greenhouse Air Conditioning," Dr. L. C. Marshall, University of California, Berkeley.

"Modern Handling Methods in Refrigerated Storage," P. B. Christensen and D. O. Haynes, Merchants Refrigerating Co., New York City.

1 p.m.—Welcome luncheon.

2:30 p.m.—Committee meetings: awards, membership, standards, research.

4:30 p.m.—Committee meetings: education, program, general technical, admissions.

9 p.m.—Beer and skittles party.

### TUESDAY, DEC. 9

9:30 a.m.—Second technical session, Vice President Clifford F. Holske presiding.

"Refrigeration Developments in the Dairy Industry," Dr. R. J. Ramsey, Ramsey Laboratories, Cleveland.

"Refrigerated Storage of Edible Nuts," C. T. Baker, Atlanta.

"Mechanical Developments in Marine Refrigeration," S. W. Brown, Carrier Corp., New York City.

12 noon—Publications committee luncheon-meeting, group luncheons.

1 p.m.—Women's luncheon and entertainment.

2 p.m.—Third technical session, Vice President B. H. Jennings presiding.

"Quick Freezing Theories Exposed to the Polarizing Petrographic Microscope," J. M. Lebeaux, University of Texas, Austin, Tex.

"Quality Characteristics of Beef in Freezer Storage for 40 Years," J. M. Ramsbottom et al., Swift & Co.

"Fish Freezing at Sea," J. M. Lemon and C. B. Carlson, Fish and Wildlife Service, U. S. Department of Interior, Washington, D. C.

7 p.m.—Annual cocktail party and dinner-dance.

### WEDNESDAY, DEC. 10

10 a.m.—Fourth technical session, Treasurer Paul B. Christensen presiding.

"Applications of Refrigeration to Concrete Dams," C. Rawhouser, Bureau of Reclamation, U. S. Dept. of Interior, Denver.

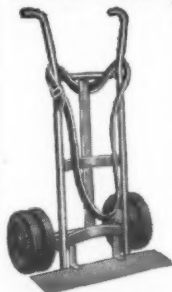
"Desirable Characteristics of Refrigeration Desiccants and Methods of Testing," Dr. P. L. Veltman and C. E. Waring, Davison Chemical Co., Baltimore, Md.

"Choice of Refrigerants for the Centrifugal Compressor," O. E. Gamill, Jr., Carrier Corp., Syracuse.

12:30 p.m.—Induction of new officers.

1 p.m.—Council luncheon-meeting.

## NEW DUAL WHEEL TRUCK FOR APPLIANCES



Rolls like baby buggy on 4 big (Dual) 8 x 2 rubber tires. Unusually resilient, quiet. Easily handles refrigerators, and all appliances up to 1000 lbs., 54" ht.; 24" nose; 13" web strap. Also handles crates, boxes, bags, etc. \$31.00 f.o.b. Over 15,000 Handee trucks sold by mail. Send back express collect if not satisfied. Order Monday—get Friday, from

HANDEES CO.  
Dept. AC-11  
Bloomington, Ill.

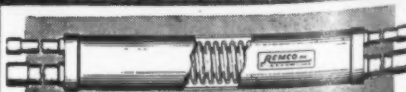
Over 1,000,000  
In Use

## Investigate the NEW MASTER Food Conservator

Sold thru refrigeration and insulation distributors. Write for particulars.

Master Manufacturing Corp.  
121 Main St. Sioux City 4, Iowa

## REMCO "Liquid-Fin" HEAT EXCHANGERS



LIQUID flows inside the spiral corrugations in "prime" heat exchange relationship with the colder higher velocity suction gases which travel outside the rapid-translator "Liquid-Fin" heat exchanger element. Capacity per unit size is very high.

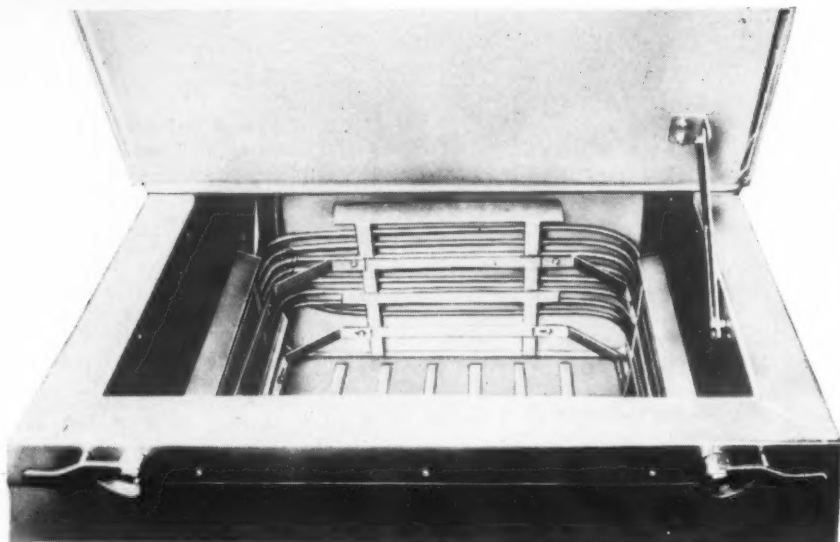
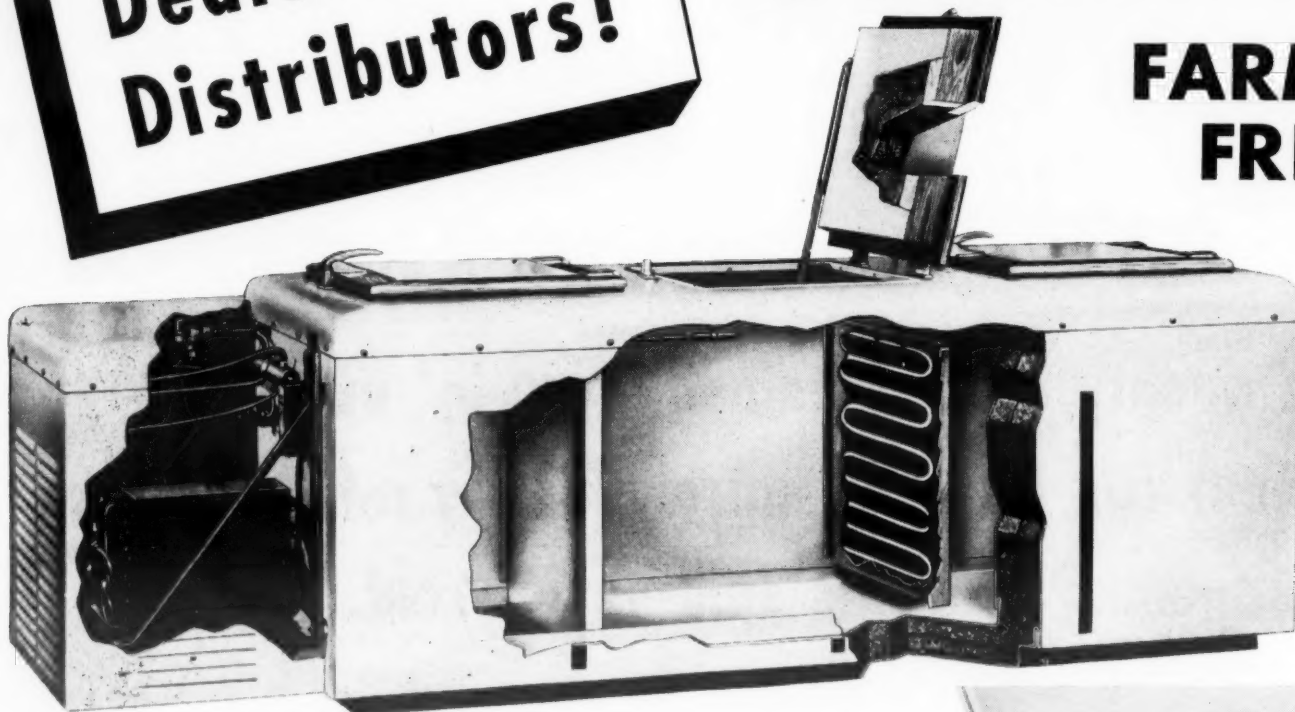
ASK YOUR WHOLESALE... OR WRITE  
REMCO, INC., ZELIENOPLE, PA.

**Dealers!  
Distributors!**

# Steinhorst

## FARM-HOME FREEZERS

## ELECTRIC MILK COOLERS



**STEINHORST**, the manufacturers of STEINHORST FARM-HOME FREEZERS since the early 30's and STEINHORST ELECTRIC MILK COOLERS since the early 20's NOW are able to expand the distribution of these products into new and choice territories.

Write for information. Write today!

**EMIL STEINHORST & SONS, Inc.**  
UTICA, NEW YORK

FOR 36 YEARS



THE TRADEMARK OF QUALITY PRODUCTS



## FTC Releases Cease & Desist Order Issued Against Super-Cold Corp.

WASHINGTON, D. C.—As was reported in the NEWS of Oct. 20, the four-year litigation between Super-Cold Corp. and the Federal Trade Commission over alleged misrepresentation in the company's advertising was ended recently with the issuance of a cease and desist order by the government agency.

Officials of Super-Cold claim that the final outcome of the case represents a victory for the company. Originally FTC had listed 38 separate charges in its complaint, but these were finally boiled down to nine, and of these nine, virtually all had been discontinued from the company's literature or changed before the FTC brought charges, the company states.

Complete text of the cease and desist order follows:

### Text of Order

I. In connection with the offering for sale, sale and distribution of refrigerator display cases in commerce, representing, directly or by implication,

(1) that respondent's refrigerator display cases will operate at substantially less cost or on substantially less horsepower than other modern refrigerator display cases;

(2) that the glass fronts on refrigerator cases other than the respondent's will sweat or become clouded or dirty within three years' time;

(3) that during the past fifteen years or during any other period of time Super-Cold engineers have developed all of the new and advanced engineering principles in refrigerator display case construction and application;

(4) that respondent is the recognized leader and authority in the field of refrigerator display case manufacture;

(5) that the respondent's display cases are the only refrigerator display cases on the market equipped with non-insulated all metal drain pans that will not sweat;

(6) that the respondent's display cases are the only porcelain enclosed display cases on the market with rounded edges on the top, front and front ends;

(7) that the respondent's display cases are the only display cases constructed in such a way that two or more cases may be installed in one continuous line;

(8) that the respondent's display cases are the only ones on which the porcelain parts are formed with dies; or

(9) that the respondent's display cases have any exclusive features which they do not in fact possess; and

II. In connection with the offering for sale, sale and distribution of refrigerator displays in commerce, representing, directly or by implication,

(1) that the so called blower system of refrigeration is inadequate or ineffective for the preservation of foods;

(2) that the blower system of refrigeration has been discredited for the preservation of perishable foods, or that said system is a failure for use in the refrigeration of fresh meats, or for other purposes, or that said system has no redeeming features; or,

(3) that there are no display cases on the market refrigerated by the operation of a fan or blower that are proper or adequate for use in the preservation or display of foods; prohibited.

At a regular session of the Federal Trade Commission held at its office in the city of Washington, D. C., on the 26th day of September A. D. 1947.

This proceeding having been heard by the Federal Trade Commission upon the complaint of the Commission, the answer of the respondent, testimony and other evidence in support of and in opposition

to the allegations of the complaint taken before trial examiners of the Commission theretofore duly designated by it, the report of the trial examiner upon the evidence and exceptions to such report, briefs in support of the complaint and in opposition thereto, and oral argument; and the Commission having made its findings as to the facts and its conclusion that the respondent has violated the provisions of the Federal Trade Commission Act:

It is ordered, That the respondent, The Super-Cold Corporation, a corporation, and its officers, agents, representatives and employees, directly or through any corporate or other device, in connection with the offering for sale, sale and distribution of refrigerator display cases in commerce, as "commerce" is defined in the Federal Trade Commission Act, do forthwith cease and desist from representing, directly or by implication—

1. That its refrigerator display cases will operate at substantially less cost or on substantially less horsepower than other modern refrigerator display cases.

2. That the glass fronts on refrigerator display cases other than the respondent's will sweat or become clouded or dirty within three years' time.

3. That during the past fifteen years or during any other period of time Super-Cold engineers have developed all of the new and advanced engineering principles in refrigerator display case construction and application.

4. That the Super-Cold Corporation is the recognized leader and authority in the field of refrigerator display case manufacture.

5. That the respondent's display cases are the only refrigerator display cases on the market equipped with non-insulated all metal drain pans that will not sweat.

6. That the respondent's display cases are the only porcelain enclosed display cases on the market with rounded edges on the top, front and front ends.

7. That the respondent's display cases are the only display cases constructed in such a way that two or more cases may be installed in one continuous line.

8. That the respondent's display cases are the only ones on which the porcelain parts are formed with dies.

9. That the respondent's display cases have any exclusive features which they do not in fact possess.

It is further ordered, That the respondent, and its officers, agents, representatives and employees, directly or through any corporate or other device, in connection with the offering for sale, sale and distribution of refrigerator display cases in commerce, as "commerce" is defined in the Federal Trade Commission Act, do forthwith cease and desist from representing, directly or by implication:

1. That the so-called blower system of

refrigeration is inadequate or ineffective for the preservation of foods.

2. That the blower system of refrigeration has been discredited for the preservation of perishable foods, or that said system is a failure for use in the refrigeration of fresh meats, or for other purposes, or that said system has no redeeming features.

3. That there are no display cases on the market refrigerated by the operation of a fan or blower that are proper or adequate for use in the preservation or display of foods.

It is further ordered, That the respondent shall, within sixty (60) days after the service upon it of this order, file with the Commission a report in writing setting forth in detail the manner and form in which it has complied with this order.

By the Commission.  
[SEAL] OTIS B. JOHNSON,  
Secretary.

### Hugo Smith To Represent Kramer-Trenton Co.

TRENTON, N. J.—The Kramer Trenton Co. has appointed Hugo C. Smith sales representative in Ohio, West Virginia, and eastern Michigan, with headquarters in the N.E.C. building, Cleveland.

Mr. Smith brings to this post a background of 20 years experience in the refrigeration field.

### Charles Q. Sherman To Set Up New Agency

NEW YORK CITY—Charles Q. Sherman, of Refrigerated Equipment Sales here, has announced the severance of his connections with Weber Showcase & Fixture Co., whom he has represented in the East since 1945.

Mr. Sherman said that he plans to continue in the industry.

He further announced that his son, Bernard A. Sherman, a graduate of Columbia University business school, has joined him in his business.

Mr. Sherman, whose office is at 149 Broadway, has been in the refrigeration industry for more than 30 years.

### Harris Appliances Gets York, Hussmann Lines

CONNELLSVILLE, Pa.—Harris Appliances here has been appointed to handle Hussmann and York refrigeration equipment and Oasis Ebco water coolers locally, Edwin "Bucky" Harris, owner and operator, has announced.



This stainless steel KOCH Refrigerator is the first really new post-war product in the field. It has no wood any place. The insulation forms a continuous and uninterrupted blanket of positive food protection. The interior is stainless steel also. The entire cabinet is welded into a single structure. Yet these are just a few of the plus features of this extraordinary new refrigerator... a refrigerator built by the same craftsmen who manufactured thousands of stainless steel refrigerators for the United States Navy.

The ice maker can freeze 216 cubes, 21 pounds of ice, at a time; or can be rearranged instantly to make 108 ice cubes, and also provide a frozen food storage space that is 12 inches wide, 13½ inches deep, and 5½ inches high.

Very interesting, but until you see and own this KOCH beauty, you are missing America's outstanding performer.



The Koch Reach-In 25 Cu. ft. refrigerator is now available with or without the ice-maker.

# KOCH Refrigerators

SINCE 1883

NORTH KANSAS CITY 16, MO.

"Koch is Top Notch"



PIONEERS in the manufacture of completely packaged AIR-CONDITIONERS\*

Manufacturers of: Evaporative Condensers Air Handling Units for Heating and Cooling Unit Coolers for Refrigeration • Blast Coils for Heating and Cooling.

For further information contact your Governor distributor or wholesaler, or write direct.

GOVERNOR CORPORATION  
513 N. BLACKWELDER  
OKLAHOMA CITY, OKLA.  
P. O. BOX 1654

\* with evaporative condensers, U. S. Patent No. 2,297,928.



## Jones Store Co. Will Open Air Conditioned Branch Outlet In Center of Kansas City

60,000-Sq. Ft. Unit Will Serve Heavily Populated Area

KANSAS CITY, Mo.—All the modern aspects provided by a complete air conditioning system will be incorporated in a new department store, occupying about 60,000 sq. ft. of floor space, in a three-floor selling area building to be opened by the Jones Store Co. here at Thirty-First St. and Troost Ave.

The store is part of an expansion program to put Jones stores in communities of about 10,000 population in Kansas, Missouri, and possibly other states in the Kansas City trading area.

As far as Kansas City is concerned, the move away from the downtown area and congested traffic conditions, represents an attempt to serve customers better by locating in a heavily populated, residential area. The downtown store facilities will be retained, in which Jones operates several of the longest retail sales floors in the United States.

Contracts for the installation of the cooling system for the new store have not been let, but plans for the modern, functional building are now being completed by Bloomgarten & Frohwerk, architectural firm, which has the assignment to develop a store embodying fixture and equipment layout, lighting, escalators, and merchandise displays producing efficient, streamlined operation, and buyer satisfaction.

The Jones Store, an affiliate of

Mercantile Stores, Inc., of New York, has long maintained a large department selling a complete line of household appliances, including the well-known makes of electric refrigerators, home freezers, and other "hard" goods. Under the direction of A. H. Clark, president of the company, appliance stores were opened in outlying sections of the city soon after the end of the war.

Four such branch stores are now in operation, and feature major household appliances. This in itself was a new departure from standard merchandising practices of established downtown merchants. With the plans for a full-blown department store for the neighborhood location which is approximately the geographical center of the city and in the midst of a population in excess of 100,000, success of the branch store idea is confirmed, store officials believe.

### Wright Refrigeration Co. Constructs New Quarters

SAN DIEGO, Calif.—Contract has been awarded for construction of a showroom and warehouse building at 4025 Pacific Highway, San Diego, for the Wright Refrigeration Co., to cost approximately \$48,000, it has been announced here.

## Weather Prophet

New Rheem Promotion Tells Home Owner When He Will Start Freezing

SAN FRANCISCO—A new slant on direct mail advertising to stimulate heating and appliance business is being offered by Rheem Mfg. Co. to jobbers and dealers.

Based on a two-year study by the Department of Commerce Weather Bureau of the recorded average daily minimum temperatures of various climatological sections of the United States covering a period of 20 years, this exclusive three-fold mailing folder carries a teaser on the cover which assures its prompt opening by every home owner it reaches. This is the copy which does the trick, "Look inside for the date freezing weather will strike this year."

Opening the folder the reader finds a colorful authentic weather map upon which is shown the week the first siege of freezing weather will strike in each community of the United States.

The mailing piece opens into a full-page spread upon which is illustrated the various heating appliances manufactured by Rheem.

The first freezing weather in the United States normally occurs in the western part of Wyoming, Sept. 14. The first freezing weather in that section actually took place this year on Monday, Sept. 15.

This direct mail advertising is a copyrighted Gil Thompson creation designed for Rheem and produced by Davis-Delaney of New York.

## FHA Accepts Reynolds Recommendations for Aluminum In Air Ducts

LOUISVILLE, Ky.—The Federal Housing Administration has accepted the recommendations of Reynolds Metals Co. for aluminum for air ducts in air conditioning, heating, and ventilating systems of all types, the company announced.

Reynolds said FHA has incorporated the recommendations in a recent supplement to its (FHA's) "Use of Materials Bulletin UM-1." The supplement includes alloy specifications, minimum thicknesses for both enclosed and non-enclosed ducts, and reference to construction and installation requirements. Use of aluminum hangers and fastenings are also recommended.

The application of aluminum to air ducts has been developed extensively during the past year, Reynolds noted.

"In fact," the company declared, "the suitability and advantages of aluminum for this application have become so fully established that the light metal is now being written into building codes and other specifications for control of all types of construction."

The FHA action is the most recent example of this trend, according to Reynolds.

Text of the supplement follows:

### ALUMINUM BUILDING PRODUCTS

#### Section 8. Aluminum Ducts

a. Construction and Installation. All requirements relating to duct work and now in force in local insuring offices shall be applicable to aluminum duct work unless otherwise indicated herein.

b. Aluminum sheets used for ducts shall be of corrosion-resistant alloy such as 2S or 3S having a minimum ultimate tensile strength of 15,000 p.s.i. and capable of being bent flat on itself without cracking.

c. Minimum thickness of aluminum sheets shall be as follows:

| (1) Ducts not enclosed        |                      |        |
|-------------------------------|----------------------|--------|
| ROUND DUCTS                   |                      |        |
| Minimum Thickness of Aluminum |                      |        |
| Diameter, Inches              | Brown & Sharpe Gauge | Inches |
| Less than 12                  | 26                   | .016   |
| 12 or more                    | 24                   | .020   |

| RECTANGULAR DUCTS             |                      |        |
|-------------------------------|----------------------|--------|
| Minimum Thickness of Aluminum |                      |        |
| Larger Dimension, Inches      | Brown & Sharpe Gauge | Inches |
| Less than 14                  | 24                   | .020   |
| 14 or more                    | 22                   | .025   |

(2) Ducts enclosed

| Minimum Thickness of Aluminum        |                      |        |
|--------------------------------------|----------------------|--------|
| Diameter or Larger Dimension, Inches | Brown & Sharpe Gauge | Inches |
| 14 or less                           | 26                   | .016   |
| over 14                              | 24                   | .020   |

d. Special protective coatings acceptable to the Chief Underwriter may be required if, in his opinion, the aluminum duct work will be subject to corrosive action under damp or wet conditions by alkalis in masonry or plaster.

e. Non-alkaline insulation acceptable to the Chief Underwriter may be required if, in his opinion, insulated aluminum duct work will be subject to corrosive action under damp or wet conditions due to alkalis in the insulating material.

f. If adhesives are used in securing insulation to aluminum duct work, they shall be of a type recommended by the manufacturer of the aluminum sheets and acceptable to the Chief Underwriter. Casein type glue is not acceptable.

g. Hangers and fastenings shall be of aluminum (preferred) or of steel with cadmium or zinc coating.

### Appliance Purchases Swell Chattel Mortgage Filings

FORT WAYNE, Ind.—A report issued by the Allen County Recorder's office revealed that the filing of chattel mortgages is on the increase.

In September, 3,122 chattel mortgages were issued as compared with 2,168 in September of last year. More than 70% of this increase is accounted for by household appliances and automobiles—about equally divided.

Appliance dealers and departments report a growing scarcity of consumer money for major items, and also a lack of accumulation of money by consumers for purchase of major household items in cash in hand. This means, according to appliance managers, that most major appliance business in future months will be on credit or on borrowed money.

## Salary Plus Commission Builds Good Sales Staff

MISSION, Kan.—After testing all types of salesmen compensation plans in connection with appliance merchandising, owner Jack Minnick, head of Minnick's, appliance dealership here, has determined that a guaranteed salary and commission per unit sale is best calculated to build up a permanent staff of good salesmen.

"No dealer should expect to be able to hold onto a staff of good men at present with the limited number of appliances the latter may sell," Mr. Minnick said. "We are gradually building up our sales staff, and have found that the most practical method is to pay them a decent weekly salary to cover living expenses, and leave them the opportunity to 'write their own pay check' through aggressive merchandising of appliances."

Mr. Minnick feels that so-called "profit sharing" plans, whereby all salesmen receive a percentage of gross profit over a year has some elements of danger.

"If all salesmen share equally in profits over gross, the natural tendency is for lazier men to ride along on the efforts of others," he pointed out. "By the same token, the man who gets out and sells the most business is likely to feel that he is being forced to earn part of other men's living—and he is bound to slack up on his efforts. In the same connection, straight commission only is likely to create too many prima donnas or men who will break their necks to get hold of every prospect who comes into the store."

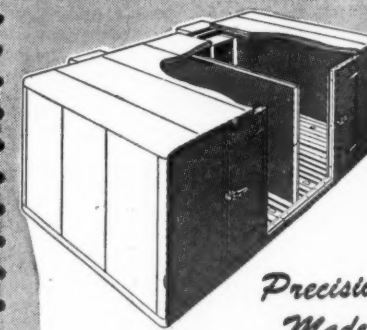
New Model

RECO-FAB

ALUMINUM EXTERIOR AND INTERIOR FREEZE COOLERS

FOR ZERO OR MEDIUM TEMPERATURES

LIGHT IN WEIGHT • SIMPLE TO ERECT, MOVE OR ENLARGE



Precision Made

SECTIONAL CONSTRUCTION

Partial List of Sizes Shown Below—Write for Our New Catalogue & Price on Size Desired. Indicate:

- \* Storage Temperature Desired
- \* Type of Product to Be Stored
- \* Quantity of Product to Be Stored
- \* Temperature of Product When Placed in Cooler

So That We May Recommend Proper Packaged Refrigeration System for the Job.

| Model | Size                        | Cu. Cap. |
|-------|-----------------------------|----------|
| 80-1  | 4'11" L x 8'6" W x 7'6" H   | 192      |
| 80-2  | 8'6" L x 8'6" W x 7'6" H    | 366      |
| 80-3  | 12'1" L x 8'6" W x 7'6" H   | 550      |
| 80-4  | 15'8" L x 8'6" W x 7'6" H   | 715      |
| 120-3 | 12'1" L x 12'1" W x 7'6" H  | 812      |
| 120-4 | 15'8" L x 12'1" W x 7'6" H  | 1075     |
| 120-5 | 19'3" L x 12'1" W x 7'6" H  | 1339     |
| 120-6 | 22'10" L x 12'1" W x 7'6" H | 1600     |
| 120-7 | 26'5" L x 12'1" W x 7'6" H  | 1862     |

Larger Sizes to

4000 CU. FT. CAPACITY

Available with RECO-PAK

SELF-CONTAINED REFRIGERATION SYSTEM EQUIPPED WITH BLOWER COIL AND RECOMATIC DEFROST OR WITH SHARP FREEZING EQUIPMENT.

Reco Fabs for Freezing & Hardening also Available.

Cable Address "RECO" Phila. REFRIGERATION ENGINEERING-CORP.

2024 MARKET STREET PHILADELPHIA 3, PA.

The Newest Name in Air Conditioning

COLUMBIA

Chicago HEAT-MASTER Company and Nevinger Mfg. Co. have combined their facilities to bring you

THE NATION'S OUTSTANDING LINE

of

AIR CONDITIONING

Air Cooled — Water Cooled

The most complete line offered today for immediate delivery—  
3/4 ton to 50 tons.

Low-Boys - High-Boys - Self-Contained - Central Station

WE ARE READY FOR 1948!!!

Valuable wholesale distributor and dealer franchises available in some areas. Write today for full information and be prepared to take the full profit from your market NOW!!

Director of Sales

Chicago HEAT-MASTER Company

506 S. WABASH AVE., CHICAGO

Harrison 7735



## Strata Aire Milk Cooler Combines Front Opening With Wet Bath Type

RITTMAN, Ohio—Milk cooler cabinets featuring front-opening doors are now in production at the plant of Strata Aire, Inc., announces Ralph Jenks, president of the company.

Available in 4, 6, and 8-can sizes, the cabinets are powered by  $\frac{1}{4}$ ,  $\frac{1}{3}$ , and  $\frac{1}{2}$ -hp. condensing units, respectively.

Front-opening feature makes high lifting of heavy milk cans unnecessary, requiring only a 9-in. lift to place the can in the cooler and a 5-in. lift to remove it, the company claims.

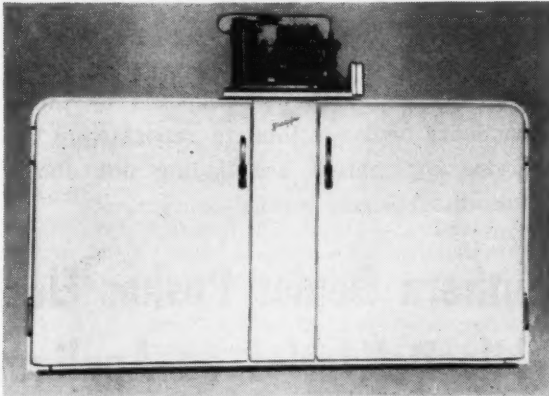
Despite the front-opening doors, the Strata Aire milk coolers are of the wet bath type. Water which is cooled in an evaporator storage tank is sprayed over the tops of the milk cans and flows down to the reservoir at the bottom of the cabinet. An all-brass self-contained pump then forces the water back into the storage tank for further cooling and recirculation.

Circulation of water is automatically controlled by a time switch, while the condensing unit is controlled independently and runs long enough to form an ice bank in the storage tank sufficient to cool water during the pump's "on" cycle, the company says.

In less than 20 minutes the cooler will reduce the temperature of milk from animal heat to 60° F., and down

## New Cooler Saves Lifting Cans

The front opening, wet bath type milk cooler at the right is made by Strata Aire, Inc. and is available in 4, 6, and 8-can sizes. As the cans are loaded through the front opening doors, high lifting of the heavy containers is avoided.



to less than 50° within an hour, it is claimed.

The cabinet itself is finished white enamel with chrome snap-action latches and hinges. Refrigerator type rubber gaskets are employed for positive sealing of doors. Cabinet walls and doors are insulated with 4 in. of mineral wool compressed to  $3\frac{1}{2}$  in. thickness. Heavy 20 gauge steel is used throughout except for

the bumper plate which is 14 gauge boiler plate.

Production efforts of the company will be concentrated on the new milk cooler line, while the firm's sectional farm freezer will be produced on a limited basis, it was announced.

Besides Mr. Jenks, officers of the company include Paul J. Emch, secretary and treasurer; and Fred J. Wetjen, sales manager.

## C. B. Butler To Be Sherer-Gillett V.P.

MARSHALL, Mich.—Sherer-Gillett Co. here, manufacturer of commercial refrigerators, has elected C. B. Butler vice president in charge of production.

Mr. Butler has been associated with the company since 1913 when he was employed as inspector. He worked through the various factory divisions until 1929 when he was appointed factory superintendent, serving here until his recent election.

## Deepfreeze Home Economist To Speak at Frozen Food Dinner

CHICAGO—Geraldine Corman will address the monthly dinner meeting of the Women's Division of the Electric Association Nov. 18.

Miss Corman is the director of the Home Economics Department, Deepfreeze Division, Motor Products Corp. She will speak about "Fashions In Frozen Foods—Trends and New Products." Frozen food will be served.

## J.S. Lorne Joins Copeland's Engineering Department

SIDNEY, Ohio—John S. Lorne, a former project and testing engineer for Universal Cooler, has joined the engineering staff of Copeland Refrigeration Corp. as a designing and developing engineer, according to an announcement by O. H. Buschmann, Copeland vice president.

Mr. Lorne was graduated from the University of Detroit in 1940 with a bachelor of mechanical engineering degree and immediately joined Universal Cooler. He was first assigned to the designing department and later the plant engineering department. After serving in the army from 1944 to 1946, he rejoined Universal as a project and testing engineer.



## Krich-Radisco Training New Retail Salesmen For Its Dealerships

NEWARK, N. J.—A program of screening, hiring, and training outside salesmen for its dealers in northern New Jersey is currently being conducted by Krich-Radisco, Inc., appliance distributor here.

In the first 15 weeks of the program, 650 men had been processed, according to William A. Duffy, sales training director.

Men are recruited for the program through newspaper advertisements, employment agencies, and political, fraternal, and veteran organizations, Mr. Duffy said.

"After a screening interview," he declared, "those fitted for this type of work are brought into the company's auditorium for an intensive course on the products distributed by Krich-Radisco."

Then they attend morning, afternoon, and evening courses in basic sales psychology, public speaking, sales technique, and actual demonstrations, he said.

Mr. Duffy, assisted by the firm's product managers, factory representatives, and guest lecturers, handles the instruction.

Upon completion of the course, the salesmen are assigned to dealers who have expressed willingness to hire them. The recruits start work on a commission basis, running from 10 to 15%, he asserted. Men currently engaged in this program average from \$75 to \$130 per week, he declared.

Paul R. Krich, vice president, stated, "I have been pleasantly surprised by the type of men we are securing for this work. They are alert, aggressive, and seriously interested in selling as a career."

"I believe they will be of great assistance to our dealers in helping them maintain the volume of sales so necessary to the operation of a successful retail appliance business."

"Our dealers have received this program enthusiastically and are co-operating 100%."

## Buffalo Forge Co. Net Profit Is \$662,193 for Quarter

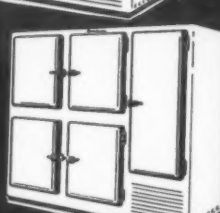
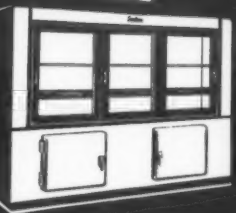
BUFFALO—Net profit of the Buffalo Forge Co. and subsidiaries for the quarter ended Aug. 31 was \$662,193, after provision for federal and Canadian income taxes, President Edgar F. Wendt announced.

This was equal to approximately \$2.04 a common share. In the previous quarter ended May 31, the company's net profit, after provision for income taxes, was \$878,404, or about \$2.70 a common share. For the quarter ended Aug. 31, 1946, Buffalo Forge had a net profit of \$246,750, equal to about 76 cents a common share.

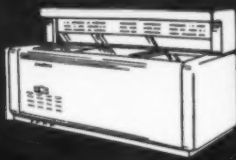
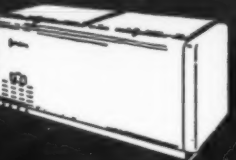
*-the field is yours*  
with the full  
**JORDON**  
line —

WE'VE  
SAID IT BEFORE  
AND WE REPEAT:

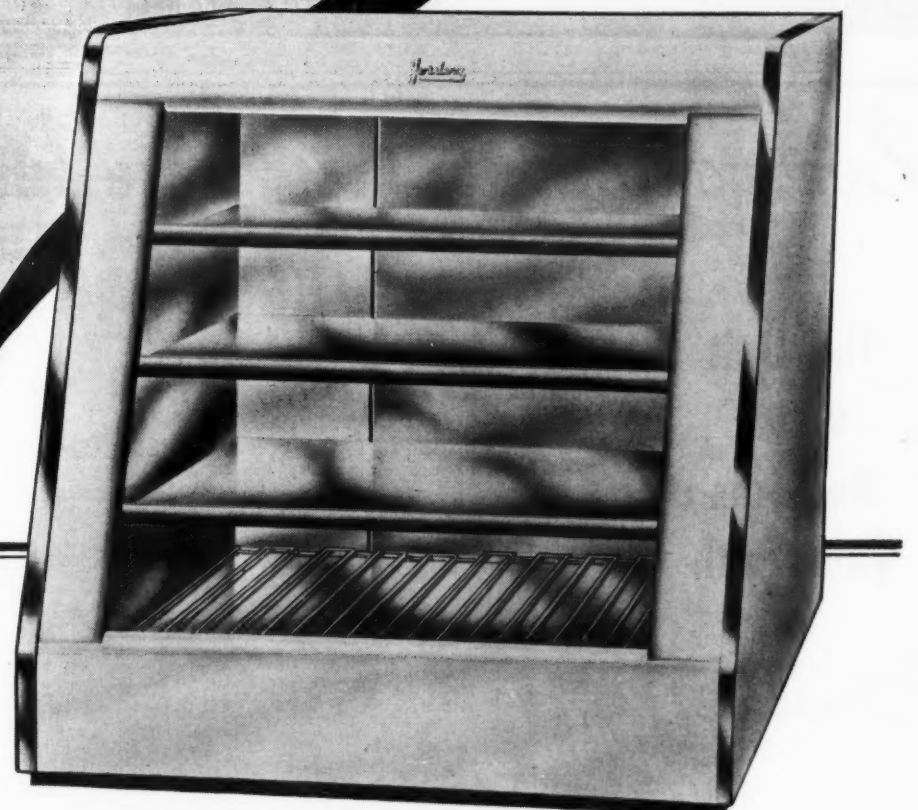
JORDON Dealers have a  
full line—a smart line—  
a promotion line



REACH-INS in all temperature ranges from 23 cu. ft. to 60 cu. ft. porcelain, stainless steel or white enamel finishes including glass door wall cases, and the exclusive, fast selling JORDON 14/6 which features: ICE MAKER, ZERO LOCKER, STANDARD REFRIGERATION in a compact ONE CONDENSING UNIT refrigerator. With condensing units.



DISPLAY CASES, DOUBLE DUTY CASES, FULL VISION CASES, FROZEN FOOD DISPLAY CASES, BULK FREEZERS FOR HOME AND FARM, DRYCOLD BOTTLE COOLERS, ALL PURPOSE REFRIGERATORS.



which now includes these  
**FULL VISION DISPLAY CASES**  
**IN 4 Ft. and 6 Ft. SIZES**

- ★ Genuine porcelain front and top.
- ★ Polished stainless steel interior and shelves.
- ★ All welded, vapor-sealed construction.
- ★ Full 4" approved insulation.
- ★ Two JORDON "Moist-Coils" for proper humidity control.
- ★ Three sealed display glasses. (Thermopane)
- ★ Steel, bar-type floor racks.
- ★ Full length fluorescent lighting—extra utility receptacle.

— And the Price is SENSATIONAL!

These are features that satisfy a hungry market including Sandwich Shops, Bottled Goods Stores, Bakeries, Delicatessens, Drug Stores, Florists, Candy Stores, Pastry Shops and all types of food stores.

We say to you—don't waste time, this is the biggest money maker in the refrigeration field and an outstanding example of JORDON'S ability and capacity to produce top-flight equipment at the right price—at the right time!

WRITE  
WIRE  
PHONE  
for data  
sheets



**JORDON**  
AMERICA'S MODERN COMPLETE LINE  
**JORDON REFRIGERATOR CO.**

Sales Division  
235 N. BROAD STREET, PHILADELPHIA 7, PENNA.  
PLANT: PHILA., PA. CABLE: "JORDONREF" L.Oust 7-2913





## LET Easload CARRY THESE APPLIANCES!

It's a "white-collar" job to carry heavy appliances with the Easload Appliance Truck. Easload does the work—you guide. Just slide the Easload under the appliance, and you're off to the races. All the weight is on the rubber-tired balanced wheels which slide back at a touch of the foot pedal when the load is picked up.

And for second floor deliveries, or for putting the load in and out of the delivery truck, merely slide the Easload on its smooth and sturdy tubular frame.



Immediate Delivery  
\$48.50 f.o.b. Los Angeles,  
Calif. Capacity 800 lbs.

**COLSON EQUIPMENT & SUPPLY CO.**  
1317 WILLOW STREET LOS ANGELES 13, CALIFORNIA

## Field Report

One of the News' most popular prewar features, the newly-resumed "Field Report" prepared by the editors and staff correspondents, will continue to report what distributors, dealers, and service contractors are finding out about the market, effective promotion, prices, service charges, etc.

### Southern Dealer Pushes Electric Pumps While Deliveries on Appliances are Slow

By George M. Hanning

WINSTON-SALEM, N. C.—"I've been in business here for three years and if I have a dissatisfied customer I don't know it," Jack L. Lancaster, partner and general manager of the Winston-Salem Appliances & Pump Co. here proudly asserted.

"I'm well satisfied and proud of our record," Mr. Lancaster admitted. With his partner, E. H. Poore, who handles service and installation work, he started out with \$6,000 capital and has worked that up into a \$50,000 inventory and a \$100,000 per year business, he declared.

"We have had to work long hours and pour every cent back into the business in order to do it, though," he added.

The electric pump business constitutes the firm's main line at the present time, however. "We are not getting enough appliances to do much with them," he stated.

Electrification of the tobacco farms in the vicinity and the added incen-

tive of cheap power rates have brought demand for electric pumps to an unprecedented peak, he declared.

Though the pressure of the pump business has pushed the appliance business into the background at the moment, the firm has established definite appliance merchandising policies.

Mr. Lancaster said that though appliances are coming through very slowly, he does not make use of a waiting list.

However, he will take a prospect's name and will call him when merchandise comes in. In this way, neither the store nor the customer is committed to anything. There are no hard feelings and everything works out fine.

With refrigerators, Mr. Lancaster said, the store tries to give persons who really need a refrigerator first chance to get one.

"There are quite a few ex-service-men who have gotten married and do not have a refrigerator of any kind and really need one. Other couples who had been living with parents before the war now have their own homes and must have refrigeration. It gets pretty hot down here during the summer and refrigeration is a real necessity."

"We have given these persons a priority on refrigerators and we have had no objections yet," he said.

To further help them, he has made it a practice to accept trade-ins when they are offered. He finds that he can quite profitably put a used machine back in working order and resell it to persons who can't get new units.

Despite the press for appliances, he has not attempted to get merchandise through prevalent "gray market" channels.

In the first place, he said, the electric pump business is keeping him too busy. In the second place, the company is trying to build up a reputation for itself as it intends to remain in business in Winston-Salem for some time.

Mr. Lancaster feels that such dealings would do more harm to his

reputation and standing than the chance to make a quick profit would be worth.

"We believe in going out of our way to give a customer satisfaction," he asserted. "We make sure that he is perfectly satisfied with his purchase and the installation of it before we ever take his money."

Mr. Lancaster thinks that business will be good for a couple more years before the appliance dealer will have to get out and sell.

Farm business is especially lively now, he said. The farmers have had no bad months this year and there were no bad months last year. The farmers grumble about the price of tobacco, pointing out that their expenses are increasing more rapidly than the price, but they are making money, he noted.

The workers in tobacco factories and textile mills here are making pretty good money, too, he said. But more and more people are coming and asking for credit terms. There are not too many of these yet, he asserted, and business is mostly cash.

"I have never lost a cent on bad paper yet," he declared.

Mr. Lancaster employs six installation men, three salesmen, and two servicemen. However, there are no clear-cut distinctions between their jobs, he said. They can all work on installation or service and even get a crack at sales, he stated.

"The firm is just one big happy family," he averred. "and we pitch in and help each other out. The men may grumble at times at having to work Saturday afternoons all the time, but they know that by building up the firm they are making good positions for themselves in the future."

### NERA Dealers Issued Christmas Promotions

WASHINGTON, D. C.—Stressing the fact that Christmas is traditionally an "at home" celebration, the National Electric Retailers Association last week presented its Christmas promotion plans to local NERA chapters, and to individual members of the association who do not belong to an organized chapter.

Slogan for the promotion is "They All Remember Christmas, 1947, if you give an electrical gift!"

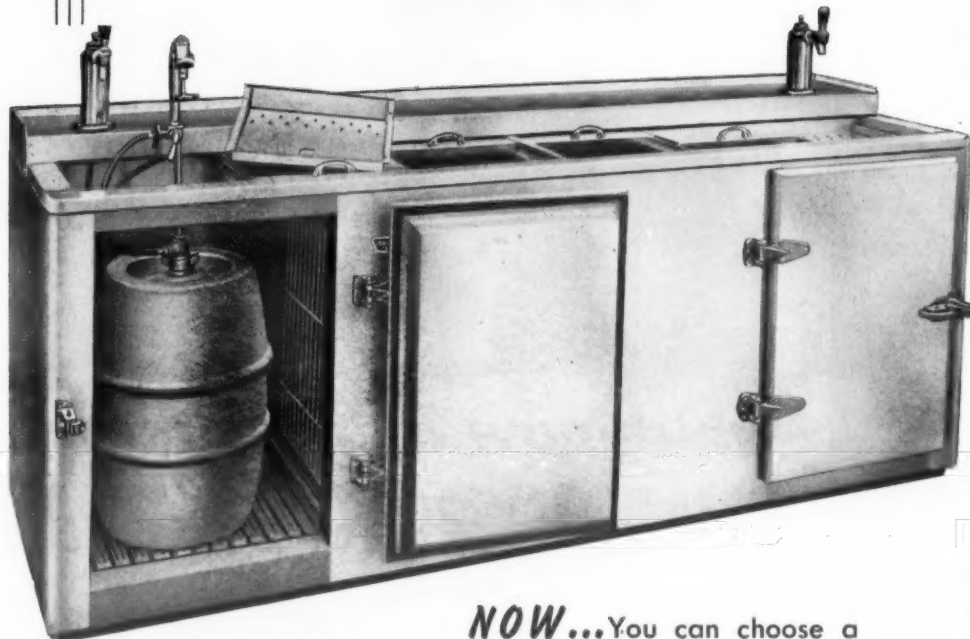
NERA Managing Director C. C. Simpson stated that all chapters and members have been mailed reprints of a Christmas newspaper advertisement embodying this theme, as well as suggested radio commercials for individual and chapter use. In addition, he said, the association is offering its members Christmas post cards for direct mail solicitations. Cards are printed on white stock in green ink and provide space for the dealer to insert his firm name, address, and telephone number.

## Everyone...is a Prospective Customer for...

### "BEVERAGE-AIR" CLUB BAR

The Unit which Restores your Faith in Quality!

Here are the features...



Removable drain pans allow tapping through top to eliminate unnecessary keg handling.

Removable lids and drain pans facilitate keg handling.

Stainless Steel Front, Top and Ends.

Lids and doors are Stainless Steel with sealed-in Fibreglas Insulation.

Inside Bottom is Stainless Steel... Walls are aluminum... 3" Insulation.

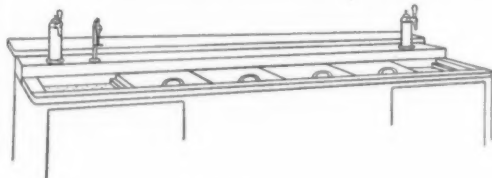
Centrally located Blowers insure uniform temperature.

Adjustable compartment dividers for convenient bottle arrangements.

IT'S NON-CORROSIVE

More Capacity in Less Space than any other cooler.

NOW...You can choose a Beverage Cooler or Draft System on the basis of quality and reputation... not on what is available. Every BEVERAGE-AIR keeps faith with the standards which have made the name well-known for quality.



(OPTIONAL)

The BEVERAGE-AIR is a COMPLETE SERVING BAR...

The black "cigarette-proof" Micarta Top Covering with Aluminum trim makes the ideal arrangement for lasting beauty.

#### DIMENSIONS...

Height... 39" (with Bar Top... 41")  
Width... 26" (Add 2" for doors and hardware)  
Length... 95"

#### CAPACITIES...

2 Halves and 20 Cases or,  
3 Halves and 12 Cases or,  
4 Halves and 5 Cases.

**THE PUNXSUTAWNEY COMPANY**  
PUNXSUTAWNEY PENNSYLVANIA

ATTENTION: Commercial Dealers and Distributors...

Write for our Distribution Policy on Club Bars and Beverage Coolers.

## Filtrine WATER FILTERS



### TASTES AND ODORS VANISH

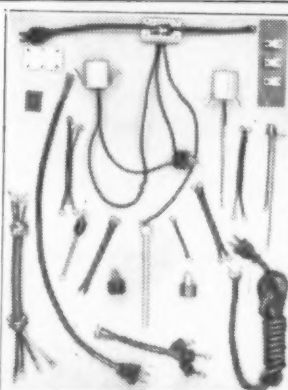
Filtrine Filters, in all applications, assure sparkling water—clean to the eye, stimulating to the palate, free of objectionable odors—the kind your customers expect from their coolers!

SELL A FILTRINE FILTER WITH EVERY COOLER... A NATURAL PROFIT-MAKING TIE-IN!

Several choice areas available for manufacturers' representatives.

**FILTRINE MANUFACTURING CO.**  
53 LEXINGTON AVE., BROOKLYN 5, N.Y.

Manufacturers of Coolers & Filters for over 40 Years



### PRODUCTION MANUFACTURERS

ELECTRICAL WIRING HARNESSES AND DEVICES FOR REFRIGERATORS ELECTRIC RANGES WASH MACHINES APPLIANCES AUTOMOBILES RADIOS

Insulated wire cut and stripped to your specifications, cord sets, heater cords and extension cords. Send us your print or sample.

IMMEDIATE DELIVERY

**RIVERSIDE MANUFACTURING CO.**  
PHONE 288-2934-3175  
200 S. RIVER ST., YPSILANTI, MICHIGAN



## What It Costs To Operate Appliances

### Electric Household Appliances

Estimated Wattage, Kilowatt Hour Consumption, and Operating Cost, Assuming Normal Use.

| Electrical Appliance              | Estimated       |                   |              | Approximate |               |
|-----------------------------------|-----------------|-------------------|--------------|-------------|---------------|
|                                   | Average Wattage | Kwh. Use Per Year | Month Of Use | Cost @ 3¢   | Cost @ 1 1/4¢ |
| Bed Coverings (5 months seasonal) | 215             | 130               | 26.00        | \$.78       | \$.46         |
| Cleaner, Vacuum                   | 200             | 20                | 1.66         | .05         | .03           |
| Clothes Dryer                     | 4,500           | 480               | 40.00        | 1.20        | .70           |
| Clock                             | 2               | 17                | 1.41         | .04         | .02           |
| Dishwasher                        | 250             | 36                | 3.00         | .09         | .05           |
| Fan, Desk (3 months seasonal)     | 75              | 6                 | 2.00         | .06         | .04           |
| Food Mixer                        | 120             | 5                 | .41          | .012        | .007          |
| Freezer, Home (6 cu. ft.)         | 200             | 504               | 40.00        | 1.20        | .70           |
| Freezer, Farm (25 cu. ft.)        | 400             | 882               | 70.00        | 2.10        | 1.23          |
| Germicidal Lamp                   | 4-8-15-30       | 130*              | 10.83        | .32         | .19           |
| Heating Pad                       | 50              | 2                 | .16          | .005        | .003          |
| Iron                              | 1,000           | 95                | 7.91         | .24         | .14           |
| Ironer                            | 1,400           | 125               | 10.41        | .31         | .18           |
| Percolator                        | 600             | 60                | 5.00         | .15         | .09           |
| Precipitator                      | 80              | 700†              | 57.60        | 1.73        | 1.01          |
| Pump                              | 250             | 225               | 18.75        | .56         | .33           |
| Radio (console)                   | 100             | 100               | 8.33         | .25         | .15           |
| Radio (table)                     | 60              | 60                | 5.00         | .15         | .09           |
| Range                             | 10,000          | 1,140‡            | 95.00        | 2.85        | 1.66          |
| Refrigerator                      | 200             | 335               | 27.91        | .84         | .49           |
| Roaster                           | 1,320           | 225               | 18.75        | .56         | .33           |
| Stoker (7 months seasonal)        | 250             | 280               | 40.00        | 1.20        | .70           |
| Sun Lamp (RS)                     | 275             | 5                 | .41          | .012        | .007          |
| Toaster                           | 800             | 30                | 2.50         | .08         | .04           |
| Waffle Iron                       | 800             | 10                | .83          | .025        | .015          |
| Washer (conventional)             | 250             | 30                | 2.50         | .08         | .04           |
| Washer (automatic)                | 375             | 60                | 5.00         | .15         | .09           |
| Waste Disposal Unit               | 250             | 9                 | .75          | .02         | .01           |
| Water Heater                      | 1,500           | 3,420§            | 285.00       | 8.55        | 5.06          |

\*Continuous service 15-watt lamp. †Continuous service. ‡Schedule "BR" @ 1 1/4¢ per kwh. §Schedule "WH" @ 1¢ per kwh.

## Rate Chart Shows Appliance Customers' Operating Cost Is Lower Than They Think

PITTSBURGH—To help dealers' sales forces combat buyer resistance, West Penn Power Co. here has prepared a chart showing how little it costs to operate electric household appliances.

Commenting on the chart, the utility pointed out that many customers "have mistaken or misguided ideas about the operating costs of the equipment you are trying to sell them."

"Here's your chance to prove that, for the most part, these costs are lower than they realize," West Penn said. "Measured by today's price standards, electricity costs less than ever."

It was explained that all figures in the table are based on estimates of normal usage by average family units.

"If you and your customer cannot determine the rate which would apply to additional services in specific instances," the utility noted, "we suggest that you use general statements such as:

"A home freezer will vary from 70 cents to \$1.20 per month' . . . 'a toaster will use 4 to 8 cents monthly' . . . 'you can use this ironer at a cost of from 18 to 31 cents a month' 'a dishwasher uses 5 to 9 cents worth of electricity each month.'"

Estimated kilowatt hour consumption was listed in the chart in both yearly and monthly figures. This was done, West Penn said, in order not to mislead customers on total yearly operating costs.

"Some items of electrical equipment are purely seasonal," the utility stated. Take electric bed coverings, for example. It does not follow that, because the monthly rate of operation is 78 cents or 46 cents, the yearly total would run to \$9.36 or \$5.52. Since this item is generally used for a five-month period, operating cost should be figured accordingly."

Two separate rates were used because electricity costs less per unit in large quantities, according to West Penn. Hence, it added, a customer's use determines the cost.

## Laboratory Tests Show:

# Electrical Cooking Is More Economical, Also Cooler and Faster In Preparing Typical Meal

NEW ORLEANS — Laboratory-controlled tests just completed by the General Electric Co. in Bridgeport, Conn., indicate that, compared with any other standard cooking method, electric cooking is economical, cool, and fast. P. M. Augenstein, commercial engineer of G-E's range division, told the Newspaper Food Editors Conference here Oct. 28.

Conducted inside a standard 12 by 15-ft. kitchen floated inside a much larger room in which temperatures could be arbitrarily raised or lowered, breezes created, and where measuring instruments of all types were available, the tests were made to determine the comparative efficiency of a low-cost electric range and a low-cost flame-type range.

Menus prepared, first on one range, then on the other, were supplied by the U. S. Bureau of Human Nutrition as being typical of complete meals eaten by a Georgia farm family of two adults and two children.

"Figuring the cost of electricity at 3.5 cents per kwh. and the cost of the flame-type fuel at 9.5 cents a pound—higher than most rates for both services—we determined from the experiments that over a period of a month electric cooking saves \$1.15," Mr. Augenstein said.

On these heavy farm meals the electric range consumed 140.8 kwh. at a total cost of \$4.93, while the

other range used 532.28 cu. ft. of gaseous fuel at a cost of \$6.08.

Reporting that 2,756 B.t.u. were required from the gaseous fuel for every one B.t.u. required from the electric fuel in preparing the meals, Mr. Augenstein further disclosed that the greatest difference in temperature rise in the kitchen was 16° F. in favor of the electric range, while the smallest difference was 8° F.

"For instance, in cooking a two-hour supper, we started with a kitchen and outside temperature of 85° F. and with all windows closed," Mr. Augenstein said. "With the electric range, the room temperature rose to 98° F., while under identical conditions, the other range raised the temperature to 114° F."

"In the next test, starting with an 80° F. kitchen temperature, we opened the windows when the inside temperature reached the outside temperature of 90° F., and we then blew a variable breeze of from 0 to 80 feet a minute across the kitchen. This cut the maximum temperature to 102° F., but also lowered the efficiency of the cooking operation 5.7%."

"Using the electric range, however, we never reached 90° F."

The same tests also indicated that humidity in the kitchen when the flame-type range was used ran from 18 to 100% higher than when the electric range was in operation.

Finally, the tests yielded new evidence that electric cooking is faster than other cooking methods. To prepare a complete week's meals for the Georgia family with the flame-type range, it took 15 hours, 46 minutes and 53 seconds. The same meals were cooked electrically in 15 hours, 16 minutes and 55 seconds.

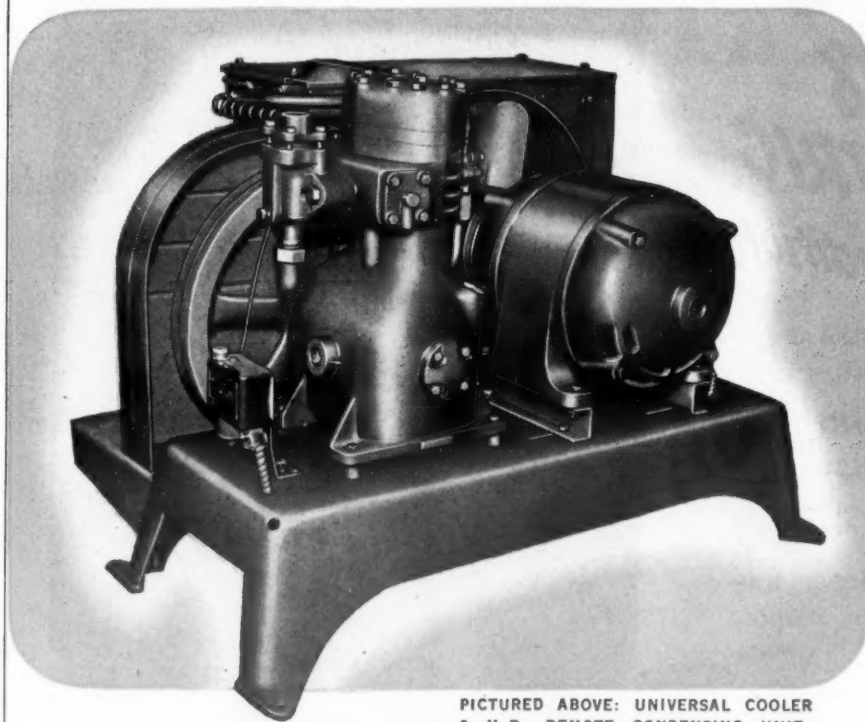
According to Mr. Augenstein, all meals prepared during the tests were cooked by methods used by a typical farm wife. No effort was made to use faster methods or special range features.

A typical breakfast called for fried eggs, boiled grits, cane syrup, fried pork, baked biscuits, coffee, and milk. A dinner consisted of oven-roasted beef, boiled green field peas, sliced tomatoes, corn bread, sweet potatoes, biscuits, custard, cake, and tea.

To make sure that all tests were as accurate as possible, General Electric used metering equipment permitting the measurement of gaseous fuels in amounts of less than 1/1000th of a cu. ft. Voltage regulation and control equipment were used to hold the electric resistance units at all times to their designed and rated voltages.

Thermocouples were used throughout the kitchen to take internal wall and air temperatures. Wet and dry bulb values and relative humidities were constantly measured.

# IT'S DEPENDABLE!



PICTURED ABOVE: UNIVERSAL COOLER 3 H.P. REMOTE CONDENSING UNIT.

## 1/4 TO 15 H. P. REMOTE CONDENSING UNITS FOR COMMERCIAL APPLICATIONS

The unit illustrated is designed especially for heavy duty service in commercial refrigeration applications. Precision-built parts are carefully assembled, the unit is dehydrated, thoroughly run in and tested under actual operating conditions. Tell us about your refrigeration problems—let our sales engineers show you how Universal Cooler can solve them.

## BECAUSE . . .

**DESIGN** — Progressive, alert design engineering for which Universal Cooler is known around the world, pays dividends in efficiency and dependability. Universal Cooler design is RIGHT.

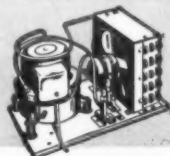
**SIZE** — Universal Cooler's unmatched range of sizes in three types of refrigerating units gives you the RIGHT size for your application—an important factor for dependable service.

**MATERIALS** — Bronze bearings . . . electric annealing of crankshafts — these and other provisions for long life of moving parts mean added dependability.

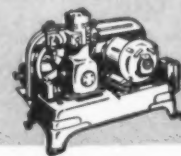
**METHODS** — Elaborate inspection devices used at every step in production assure a dependable UNIFORMITY OF QUALITY not otherwise obtainable.

**EXPERIENCE** — There's no substitute for the cumulative benefits of 25 years' experience reflected in the design and manufacture of every Universal Cooler unit.

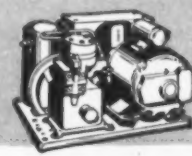
### HERMETICS



### REMOTES



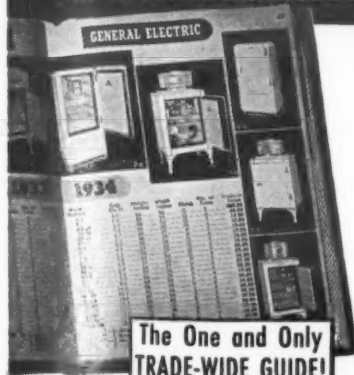
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DIVISION INTERNATIONAL DETROIT CORPORATION  
MARION, OHIO • BRANTFORD, ONTARIO

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## Louisville Armory Plans Year-Round Ice Rink

LOUISVILLE—One of the few year-round indoor ice skating rinks in the country—a \$125,000 job—will be installed in the Armory here by the Ward Refrigeration & Engineering Co.

Compressors and other refrigerating apparatus already have been moved into the building but completion of the project is not scheduled until next summer.

Before public ice skating and professional hockey can start a 10-inch floor must be laid atop the present floor. Floor will have a basic layer of tar over which will be a layer of insulating cork and finally a layer of concrete in which freezing pipes will be imbedded.

Two 125-hp. ammonia compressors will be used. Superflooded ammonia coils will chill the brine that will be circulated through the piping to freeze one-half inch of ice on the floor within 12 hours.

Water will be sprayed on the 180-by-80 ft. floor, freezing as it hits. A brine heater for melting the ice also will be installed, as the Armory will have to use the floor for other events.

Besides making ice hockey and skating possible, Armory Manager Irving G. Wayne said the icing apparatus will enable the Armory management to air condition the building for other public events such as basketball games. A portable wood floor will be laid over the new concrete floor for such events.

Equipment for the rink will be supplied by the Vilter Mfg. Co.

## Mittelhauser Represents Schaefer, Inc. In East

MINNEAPOLIS—Schaefer, Inc., manufacturer of low temperature cabinet equipment, has appointed Henry M. Mittelhauser eastern representative.



Mr. Mittelhauser, who was formerly with the Joe Lowe Co., will cover a territory including Pennsylvania, New Jersey, Maryland, District of Columbia, and adjacent territories starting at New York City.

H. M. Mittelhauser and then extending south along the eastern seaboard, according to the company's announcement.

Prior to the war he was with the cabinet sales division of Kelvinator Div., Nash-Kelvinator Corp.

## A.E. Stacey Will Address Michigan ASHVE Nov. 17

DETROIT—A. E. Stacey, vice president of Buensod-Stacey Air Conditioning, Inc., New York City, will discuss the "Development of Air Conditioning and Its Application to the Industries of the Future" at the monthly meeting of the Michigan Chapter, American Society of Heating and Ventilating Engineers Monday, Nov. 17.

The meeting is scheduled to be held in the Rackham Educational Memorial here, according to officials.

## Coleman, Credit Firm Arrange Financing Plans For Wholesaler, Dealer

WICHITA, Kan.—Completion of a dealer wholesale and purchaser retail financing arrangement between the Coleman Co. here, manufacturer of floor furnaces, oil space heaters, automatic water heaters, and warm air furnaces, and the Commercial Credit Corp. of Baltimore, has been announced by Chester B. Kuhn, treasurer and controller of the manufacturing firm.

The agreement is designed to make available to Coleman dealers credit lines for wholesale financing of Coleman heating equipment. It also offers the dealer consumer credit financing facilities.

In addition, Mr. Kuhn pointed out, Coleman water heaters, floor furnaces, and warm air furnaces are eligible for FHA financing and purchasers may make use of this government sponsored facility through the sales finance company.

## All Air Conditioned Apartment Will Be First In Miami Beach

MIAMI BEACH, Fla.—The first all air conditioned apartment building at Miami Beach will be constructed on the corner of Euclid Ave. and 13th St. here, Jack Bell, president of Euclid Studios, Inc. has announced.

To be known as the Euclid Studios, the structure will have six stories and a penthouse, Mr. Bell declared.

## Heat Pump Experiment Started In Conklin, N.Y.

BINGHAMTON, N. Y.—What is said to be the first heat pump installation in New York state was recently made in the home of Harold I. Nichol in Morris Heights, Conklin, by the New York Electric & Gas Corp., it has been announced here.

This installation, the first of three planned for this area by the utility, is a Marvair unit utilizing earth-to-air heat transfer, it was said.

Mr. Nichol, who is transportation superintendent of the electric and gas company, had the unit installed in his home for experimental purposes. A 220-ft. well containing a closed loop U-shaped water coil, taps earth heat at a depth where the temperature averages 50° F.

By constantly pumping, the water is conveyed to the reverse cycle refrigeration unit located in the basement. The heat is here transferred to the refrigerant, compressed, and released into the house through a blower unit. Ductwork is similar to the conventional hot air heating system.

The unit both heats in winter and cools in summer. Because the system is still in the experimental stage, no estimates on installation and operation costs were available.

However, company officials said they expect that with increased use, production costs will be lowered so that heat pumps can be installed for little more than the cost of any other good heating system. Cost of operation, they said, will compare favorably with cost of other fuels.

## G.L. Tuve Gets Nomination For ASHVE Presidency In '48

NEW YORK CITY—G. L. Tuve, head of the mechanical engineering department at Case Institute of Technology, Cleveland, has been nominated for president during the 1948 term by the American Society of Heating and Ventilating Engineers.

A. E. Stacey, Jr. of Carrier Corp. and Buensod-Stacey Air Conditioning, Inc., has been nominated for first vice president; Lester T. Avery, head of Avery Engineering Co., Cleveland, has been nominated for second vice president, and Lauren E. Seeley, dean of the College of Technology, University of New Hampshire, Durham, N. H., has been put up for treasurer.

## Heating Wholesalers Plan Dec. 3 Meeting

CLEVELAND—The National Heating Wholesalers Association, established in January, 1947, by an interested group of heating wholesalers, has announced that it has retained the services of Hunter-Thomas Associates, trade association administrators, as executive secretary.

Business offices have been opened at 2130 Keith building, Cleveland, and a permanent, full-time representative, Richard M. Colegrove, of the Hunter-Thomas staff, has been assigned to administer the affairs of the association at the direction of the board of directors and a specially appointed executive committee.

An active program designed to improve the position of the heating wholesaler in the local and national economy has been planned for the year. First on the agenda is a membership campaign. Following the inauguration of the campaign, the association will hold its first annual convention at the Hotel Cleveland, Cleveland, on Wednesday, Dec. 3, 1947, one day prior to the convention of the National Warm Air Heating and Air Conditioning Association.

Plans for the convention include discussions by speakers drawn from the heating industry and the business world on such pertinent timely subjects as "Merchandising," "Dealer-Wholesaler Relationships," and "Manufacturer-Wholesaler Relationships." Also featured will be short talks on, "Laws Affecting Business Operation," and "Plans for Exchange of Local Credit Information, for the Interchange of Inventory, and for Educational and Training Programs," to be followed by an open forum discussion of the problems of the heating wholesaler.

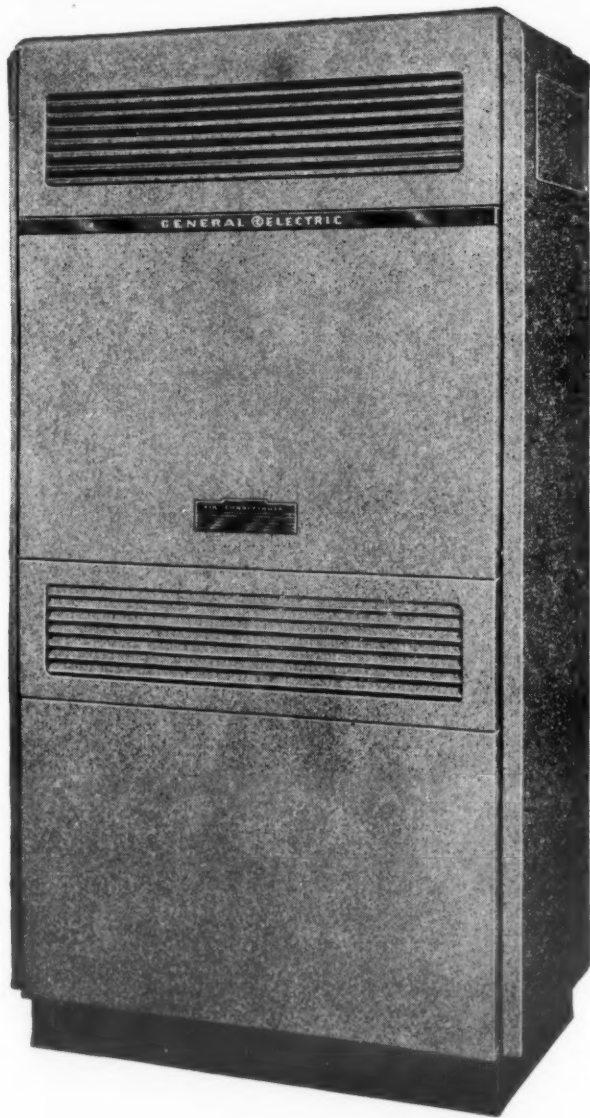
The association hopes to establish regional chapters to solve local problems on a local basis and to facilitate the operation of the national program for inventory interchange, credit information exchange, publicity on legislation applicable to the industry and laws affecting business operation, aiding in the promoting of standardization and simplification of the products of the industry, the institution of training in salesmanship and merchandising, and bookkeeping and business management, and the provision of advertising assistance to wholesalers and their dealers.

**HERE!**  
The NEW 1948  
GENERAL ELECTRIC  
self-contained air conditioner

MAKES COMFORT COOLING  
PRACTICAL FOR YOUR BUSINESS

LOOK FOR practical features in the new General Electric Self-Contained Air Conditioner . . . features that will mean easier installation, adaptability to your customer's needs . . . simple maintenance.

Out of General Electric's background of thousands of air conditioning equipment installations have come such benefits as:



**1. Ease in bringing in outside air to keep the atmosphere fresh . . .** Because G-E engineers have recognized the growing demand for adequate ventilation, these new Self-Contained Air Conditioners permit easy connection of a fresh air duct at the back of the unit.

**2. "Tailored" Air Distribution.** Conditioned air may be fanned out to provide proper air circulation by setting the horizontal louvers and vertical vanes. Thus you can keep conditioned air moving uniformly throughout the space—without "dead spots."

**3. Suitable for More than One Space.** Ductwork may be attached easily at the top of the unit to conduct conditioned air to adjoining spaces.

**4. Year Round Adaptability.** By merely adding a steam coil the unit can be used to provide cleaned, warm air and to bring in fresh air if desired.

**5. Simple Maintenance.** G-E precision manufacture includes use of finest materials and careful inspections and tests. This care minimizes service needs. For periodic check-up, all parts of the unit have been made easily accessible through the simple removal of panels.

For details on the General Electric Self-Contained Air Conditioner write your local District office of the General Electric Air Conditioning Dept. General Electric Company, Air Conditioning Department, Section 7701, Bloomfield, New Jersey.

**GENERAL ELECTRIC**  
Better Air Conditioning

**Foremost**

**IN THE LOW SIDE FIELD**

**Filterpure**

Combines the most advanced features in Unit Cooler design. Exclusive Betz Coil construction—Patented, built-in Louvers—Patented Liquid distributor—Air Diffuser—Guaranteed Ratings—Heavy Duty Motors—Quiet—Streamlined—Rugged.

Filterpure is the choice of leading Refrigeration Wholesalers, dealers and users from coast to coast.

Sold by leading Refrigeration Wholesalers

**BETZ CORPORATION**  
HAMMOND, INDIANA

LIQUID DISTRIBUTOR

AIR DIFFUSER

BUILT-IN LOUVRES



# Packaged Unit Boosts Summer Business Radio Program, Contest To Find Old Equipment Promotes Airtemp Products



Below is an interior view of the Stoll & Bergman haberdashery with an Airtemp 5-hp. packaged unit in the rear. Store officials indicated that the air conditioning had increased business during the summer months when it usually tapers off. The installation was made by Temperature Controllers, Inc., an Airtemp dealer in Youngstown, Ohio, who attempts to give customers more than they ask for.

## Doing More for Customer Than He Originally Asked Proves Successful Plan for Air Conditioning Dealer

YOUNGSTOWN, Ohio—Installing air conditioning equipment that will do more for the customer than he originally asked for is the successful sales plan followed by Temperature Controllers, Inc. here.

To illustrate, H. W. Divelbiss, vice president of the firm, pointed up a recent installation the company made at the J. W. Hendricks Candy Co. in Salem, Ohio.

The candy company had a storage room, 12 ft. by 15 ft., that had to be kept at a temperature between 65 and 68° F.

"Rather than put in a small compressor and diffuser, which would do the job, we sold them a 3-hp. Chrysler Airtemp packaged air conditioner," Mr. Divelbiss declared.

"By this method, not only were they able to maintain the desired temperature in the storage room, but also air conditioning was provided for the display room, the wrapping room, and the dipping room at very little more expense than by just doing the storage room.

"We did exactly the same kind of job for the Aetna Standard Engineering Co. at Ellwood City, Pa., where a great part of their work consists of photography.

"It is necessary to maintain a temperature of 70° F. in the developing room. Before installing the unit, we were informed, the scrap rate was terrific, but the use of this system has cut it down to a minimum.

"Besides, this installation also gives them air conditioning in their offices surrounding the dark room, thereby doing two jobs with one unit."

Mr. Divelbiss' firm recently installed a Chrysler Airtemp 5-hp. packaged unit for year-round air conditioning in the Stoll & Bergman haberdashery here. Store officials reported that the unit helped increase business during the summer months when ordinarily business tends to fall off.

The packaged unit, which does not have ductwork, occupies only 6.5 sq. ft.

CLEVELAND—"Top O' the morning to you. And here's today's parade of top o' the morning tunes . . . some old, some new . . . presented for your pleasure by Temperature Equipment Corp., 4505 Euclid Ave., Express 7890 . . . northern Ohio distributor of the world-famous line of Chrysler Airtemp air conditioning, refrigeration, and heating equipment. . . ."

Announcements such as this are being broadcast every week-day morning over WTAM to open the radio programs sponsored by the Airtemp metropolitan four star dealer here. The programs, aired from 8:45 to 9 o'clock, were inaugurated Aug. 25 and were to run for 12 weeks.

Year-round air conditioning will be emphasized on programs during the final two weeks. New home construction is the target of these wind-up shows.

Aim of the first-week programs was to build up an audience. The commercials, interspersed between recorded music, stressed heating, particularly the coal-fired furnace.

During the second week, two associate dealers were mentioned each day. A contest to find the oldest gas conversion burner in the area was announced on the last program of the week, the prize being a new Airtemp gas-fired winter air conditioner.

Another contest was launched during the eighth week to locate the oldest coal-fired furnace. A new Air-

temp coal-fired furnace was to be awarded the winner.

An example of the type of commercials used on the shows follows:

"The other day, a friend and I were discussing winter heating problems. I asked him just what, exactly, he expected of a heating plant for his home.

"He said, 'I want a furnace that will combine the advantages of more heat per dollar invested—meaning more economical operation. I want a furnace that properly humidifies the air, thus contributing to the continued good health of my family. I want a furnace that makes for a comfortable home—a cleaner home.'

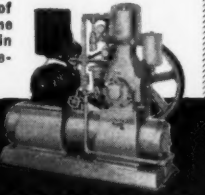
"Well, Mr. and Mrs. Home Owner, those are good features, modern features, to be expected of up-to-date heating equipment. Yes, and those are features delivered by Chrysler Airtemp furnaces—another in the long list of Chrysler products born of Chrysler engineering skill and genius. Every feature in these new, one-piece all-steel furnaces was designed for the greater comfort of your home and family, at a price to fit your pocketbook.

"May we suggest that you visit Temperature Equipment Corp., 4505 Euclid Ave., soon and see for yourself the brand-new, designed-for-you, Chrysler Airtemp gas, oil, and coal furnaces, available on easy terms. The telephone number is Express 7890."



For all types of refrigeration installations. Available in sizes ranging from 1/4 thru 40 H.P.

LIPMAN units are available for use with Methyl Chloride, Ammonia and Freon 12 refrigerants. Recognized for outstanding economy and dependability, the name of LIPMAN has become the "buy" word in the commercial refrigeration field.



GENERAL REFRIGERATION DIVISION YATES AMERICAN MACHINE CO., Racine, Wisconsin

For Silent Operation and Longer Wear

on REFRIGERATION and AIR CONDITIONING EQUIPMENT Use

MANHATTAN V-BELTS WHIPCORD FHP

They grip without slip.

They flex without overheating.

They are uniformly constructed for longer life.

They deliver the power that makes your equipment DEPENDABLE.

RAYBESTOS-MANHATTAN, Inc.

"Keep Ahead with Manhattan"

MANHATTAN RUBBER DIVISION, PASSAIC, N.J.

## For Positive Maintenance of HIGH HUMIDITY...

# PEERLESS FLASH COOLERS!

Where coolness without dehydration is essential, PEERLESS Flash Coolers give the desired performance. These are the original Flash Coolers, introduced 15 years ago by PEERLESS, and improved to their present high-efficiency in the refrigerating of cut meats, flowers, and all products where high humidity must be maintained. Wide, shallow coils spread under ceilings enable these units to deliver large volumes of cooled air with high relative humidity. Install them in cold storage boxes, walk-in and reach-in refrigerators, for retailers, wholesale houses, packing houses. Better preservation of products by PEERLESS Flash Coolers brings customer satisfaction.

For superior performance specify all these PEERLESS products: Flash Plates, Flash Coolers, Unit Coolers, Ice Cube Makers, Fin Coils, Off Center Coils, Expansion Valves and Capacity Boosters. Write for Details.

Higher operating back pressure with low flat coils provides higher compressor capacity, a more efficient installation with reduced operating cost.

Open-louvered drip pan permits free circulation of air through coil surface which produces large volumes of cool tempered air flowing downward by gravity over stored products.

The famous Peerless Internal Rifling swirls refrigerant over entire interior surface of tubing, insuring a 100% internal wetted surface and in turn 100% coil efficiency.

A Flash Cooler occupies a space not to exceed 16" from ceiling. A complete unit, it is quickly, easily installed by bolting the convenient hangers to ceiling.

SOLD THROUGH LEADING REFRIGERATION SUPPLY WHOLESALERS

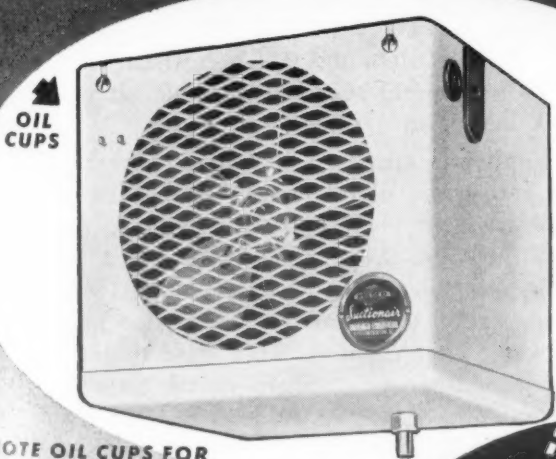
## PEERLESS of AMERICA, Inc.



General Sales Offices 2901 Lawrence Ave., Chicago 25, Illinois, U. S. A.

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in Performance



NOTE OIL CUPS FOR EASE OF SERVICING

New, Improved, Beauty of Design... Completely self-contained

"RECORD" TINY MITE EVAPORATOR

Another "Recold" achievement. The new Tiny Mite "Suctionaire." The suctionaire principle used for many years in "Recold" Supreme coils and now applied to the Tiny Mite line offers many advantages. This evaporator offers maximum accessibility and gives outstanding performance in reach-in refrigerators having capacities from 20 to 125 cubic feet, and other small type installations.



REFRIGERATION ENGINEERING, INC. 7250 EAST SLAUSON AVENUE LOS ANGELES 22, CALIFORNIA



## They'll Do It Every Time . . . . By Jimmy Hatlo

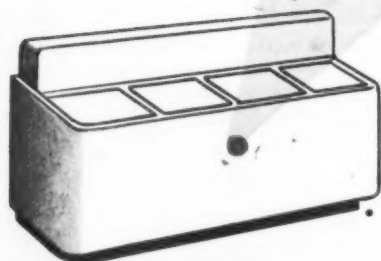


**It's Time To SELL Again!**



on frozen food  
cabinets  
this seal means

**more room for profits**



**SANTOCEL SAVES SPACE**

When you see the Santocel seal on refrigeration equipment for home or industry, you can be sure the manufacturer is offering greater inside capacity without increasing outside dimensions.

In frozen food cabinets or display cases, Santocel, "the world's most efficient insulation" means 20% to 60% more capacity with no loss in operating efficiency . . .

and no increased space requirements. If you make or use refrigerating equipment, you should know more about the advantages . . . of this unique Monsanto silica aerogel insulation. For complete Santocel information and technical counsel, address: MONSANTO CHEMICAL COMPANY, Merrimac Div., Boston 49, Mass. Santocel: Reg. U. S. Pat. Off.



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## Give a Man a Chance

**D**URING the Depression of the 1930's, we all got into the habit of agreeing that Capitalism is subject to booms and recessions. We just took it for granted, and we gave ground in our arguments with Socialists when we were confronted with that accusation and damnation. But is it true that Free Enterprise is the cause of depressions? Haven't economic ups-and-downs been suffered during all periods of political history, and under every type of economic regime?

Yes?

As a matter of fact, Capitalism in itself provides cushions against depression which aren't available to a government-ordered planned economy.

Depressions are the results of bad judgment. In a free country, depressions take place when millions of free-to-think entrepreneurs go wrong all at the same time. In a planned economy, depressions are likely to be more frequent and more drastic, because the judgment of The Favored Few is substituted for the judgment of the many.

When individuals make mistakes, these mistakes may cancel out—because one man's aberration may be overcome by another's foresight. But the miscalculations of dictators and bureaucrats are catastrophic. They throw an entire nation out-of-kilter. And the greater the power of the bureaucrat, the more immense are the consequences of a government's bad judgment. The horrendous famines, wholesale repudiations of debts and obligations, mass murders of dissidents, and slave-labor concentration camps which have been observed in totalitarian Russia since the Bolsheviks moved in are cases in proof.

A free society offers the check and counter-check of individual judgments to counteract mass emotional drives. A system of checks-and-balances best serves the interests of all the people, and promotes world harmony. When it is legislated or strong-armed out of existence, nations die out, people starve, and sometimes civilization disappears for long eras.

A free society of independent men and women is a nation which values individual freedom-of-decision, and which is willing and eager to work hard in payment for its better standard of living. It wants more, and it expects to work harder to get that "more."

A free society, in other words, is a bunch of workers who can earn more by doing more—and that definition is the essence of the philosophy of incentive payment plans. These latter have gone out of style, practical though they are. Why? Because in past years some administrators of incentive-compensation plans have acted in bad faith. They revised the compensation downward as production mounted upward. They were crooked. They cheated. They tried to get something for nothing. And the consequences of their stupid greed remain to plague us today. Furthermore, past administrators of incentive payment plans have overlooked the fact that all plans are modified by the psychology of human behavior. And human behavior defies all logical rules and mathematical calculations.

Just as no two human beings have identical finger-prints, so it is that no two persons ever act or react alike. It's the tragedy of our age that mass production, specialization, stockholder overlords, and efficiency experts have tended to reduce human beings to the status of a commodity—like coal or steel. Industry, management, absentee owners, and demagogic politicians have combined to make mankind subservient to the time-clock.

(Punch-in, punch-out. It isn't what you do that counts, it's the hours-on-the-machine with which you are credited. Bury your nose into the papers on your desk; don't look up from the machine you are tending; be punctual; don't stick your neck out—then the boss won't notice you and complain about you. By becoming a cringing, automatic non-entity—a badge-wearing, clock-conscious piece of machinery, you'll do all right. Seniority and the union satraps will raise your paychecks periodically. That's all you can hope for, aspire to—that's your fate, son.)

If that is the philosophy of younger Americans, of course booms will be followed by depressions. Capitalism, then, will be distorted into totalitarian discipline. The many will have fallen prey to the few. But if the more discerning of our sons are bright enough to realize that just putting in hours raises no standards, and that it's *productivity* and *imagineering* which lift us to new heights, then we'll get somewhere.





# Your Refrigeration Equipment Wholesaler

## Invests his money in YOUR future....

• You probably never stopped to think about it this way, but the thousands of dollars represented by your Wholesaler's stock of parts and supplies is an investment in your future, your business, for your profit.

As a refrigeration service engineer or contractor, you need not invest your own money in quantities of parts needed in your work today, next week, next month — to carry you over until orders could be delivered from far away factories. The result . . . your investment "turns over" quickly — daily, weekly — works harder and faster for quicker

profits, without tying it up for long periods of time in unused inventories. Your wholesaler, from his wide stock available at a minute's notice, helps you to greater earnings on a minimum investment — and risk.

You can depend on your Refrigeration Wholesaler as a wise investor. He takes the time and effort to make sure, to the best of his wide knowledge and good judgment, that his stock is the best that money can buy — in order that he may continue to deserve your confidence, and help you build your own reputation for good work.



**AUTOMATIC PRODUCTS COMPANY**

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Export Dept., 13 East 40th Street • New York 16, N. Y.

## DEPENDABLE Refrigerant Valves

STOCKED AND SOLD BY GOOD REFRIGERATION WHOLESALERS EVERYWHERE • RECOMMENDED AND INSTALLED BY LEADING REFRIGERATION SERVICE ENGINEERS



**SPECIFY...**

DRYERS  
THAT  
BEAR  
THIS  
LABEL



—the label that is your guarantee of maximum performance and satisfaction. Your jobber stocks it—for refilling and in factory charged dryers.

**Bowen**  
REFRIGERATION  
SUPPLIES, INC.

Atlanta Jacksonville  
Tampa Miami Charlotte  
"The South's Largest  
Refrigeration Supply Jobber"

**PROGRESSIVE**

Refrigeration Wholesalers  
throughout the nation sponsor  
the **GROUP CATALOG  
PLAN**...

World's  
Largest  
Producer  
of Wholesale  
Refrigeration  
Parts Catalogs



National Security  
Bank Building  
767 Milwaukee Ave., Chicago 22, Ill.

## Extra Compressors Provided by Isaly Dairy To Prevent Long Shutdowns Due to Failures

MARION, Ohio—Three banks of compressors with a total capacity of 78½ hp. are employed to supply refrigeration to the new dairy plant and dairy store recently constructed here by the Isaly Dairy Co.

In addition to this mechanical refrigeration equipment, there is also a Carrier well-water air conditioning unit which furnishes cooled air in the summer and heated air in the fall and winter to the modern office and spacious store in the front of the building featuring Isaly's ice cream, dairy products, and cafeteria-style luncheons.

Claimed by Isaly's to be "one of the world's most modern dairy plants," the main section of the building is two stories high, constructed of glass brick and reinforced concrete. It is 115 ft. long and 68 ft. wide.

In front of the central two-story section is the brightly decorated retail store, which measures 74 ft. wide and 22 ft. deep.

Refrigerated equipment here includes a show case with an American Coil blower at the right for dairy products and lunch meats, and two stainless steel ice cream cabinets with a capacity of 240 gals. especially designed for the Isaly store by the Jennings Mfg. Co. of Masury, Ohio.

All of the refrigerating machinery is installed in the basement, as is the air conditioning unit. In the basement also there is additional storage for ice cream, and a large United walk-in for the bulk storage of foods

and dairy products used in the salesroom.

Toward the front section of the basement is a bank of four Brunner condensing units which supply the cases and cabinets upstairs as well as the basement ice cream storage and the walk-in refrigerator.

Two of the units are 1½-hp. water-cooled machines, the third is 1 hp., while the fourth is a ½-hp. air-cooled job. Right beside these four machines is a Liquid Carbonic carbonator for the soda fountain up in the dairy store.

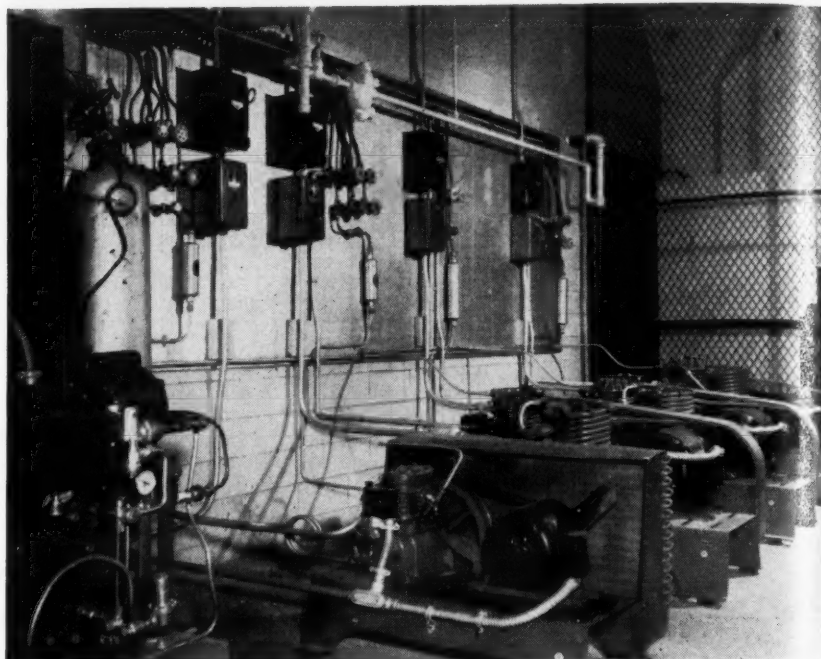
Removable driers for each machine are installed on the panel board behind this bank of compressors, and by means of Kerotest manifolds, two refrigerant circuits are taken off each two 1½-hp. units; a 1-hp. unit, and the ½-hp. unit.

The heavy-duty refrigeration machinery for the dairy is located in the engineering part of the basement. This includes 35 tons of ammonia equipment and 45-hp. for "Freon-12."

Two York 15-ton ammonia compressors are employed for cooling ice cream hardening and storage rooms on the second floor. These rooms are maintained at temperatures from -5° to -25° F.

Alongside of these units are three 15-hp. Brunner machines for cooling the sweet water employed in milk cooling, ice cream and butter manufacturing and maintaining a large milk and dairy products storage room at 38° F.

## Bank of 4 Units Cools Cases & Walk-In



This is one of the three banks of condensing units which supply 78½ hp. of refrigeration for the Isaly Dairy Co.'s new store and dairy plant in Marion, Ohio. These four Brunner machines refrigerate display cases and ice cream cabinets in the salesroom plus a walk-in and ice cream storage space in the basement.

One of these machines handles the sweet water cooling while the remaining two are interconnected for the milk storage room.

Besides these three compressors, Isaly's has a fourth machine standing by in the event of failure. The latter is not connected into the system, but the system is so designed that the failing compressor can be quickly removed and the stand-by unit installed in its place.

The bank of the three "Freon" machines is raised up off the floor about 2 ft. by means of a channel-iron framework. Not only does this arrangement make it easier to perform service operations on the compressors, but it also reduces slightly the piping runs.

Oil separators are employed on each of these three machines. To facilitate servicing and replacement of these compressors there is a hand shut-off valve in the liquid line at the machine leading to the oil separator, and beyond the separator a

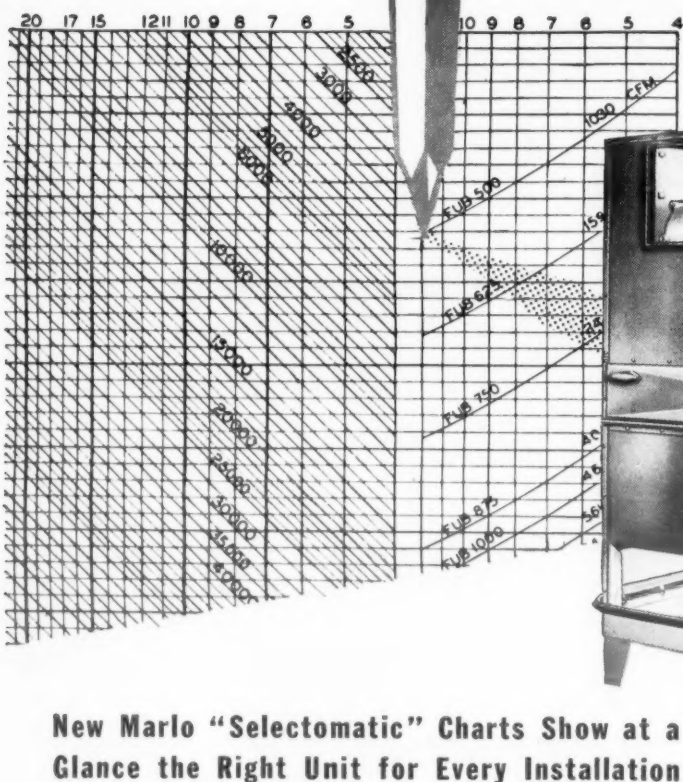
pipe union check valve, and another hand shut-off valve.

All three machines tie into a common liquid line leading to a "Freon" shell-and-tube condenser which is supplied by well water. Mounted altogether are the "Freon" condenser, a "Freon" receiver, two ammonia shell-and-tube condensers and an ammonia receiver tank.

Water at 55° F. for condensing purposes is pumped from a 186-ft. well at a rate of 500 g.p.m. and then is discharged from the condensers into an old well nearby. City water connectors are also piped in.

Installation of the larger refrigeration equipment was in charge of M. H. Ackerman, refrigeration engineer of Mansfield, Ohio, who was aided by contracted plumbers and Denzil Stricklin, chief refrigeration and maintenance man for Isaly's who handles the servicing of 125 dealers and 30 Isaly stores.

## SAVE HOURS OF COSTLY ESTIMATING... WITH ONE STROKE OF YOUR PENCIL!



New Marlo "Selectomatic" Charts Show at a Glance the Right Unit for Every Installation

For years Marlo Engineers have been painstakingly developing these charts so you can now select Marlo Industrial FUA and FUB Units "painlessly" So simple you can find the answer in a few seconds!

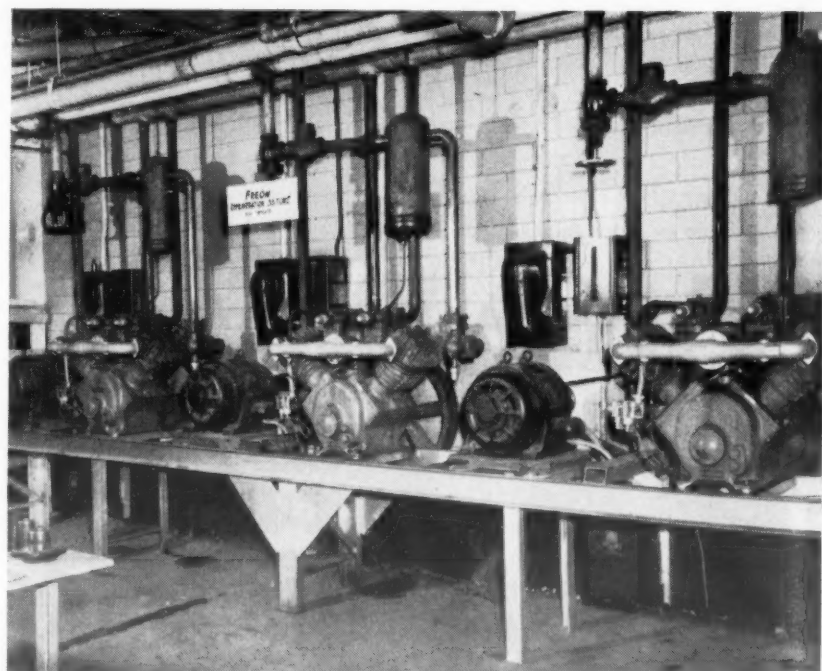
**Save** tedious, profit-devouring hours of computation —  
Eliminate many causes of costly miscalculations —  
Turn out more estimates faster, with less work —

These invaluable Marlo "Selectomatic" Charts are yours for the asking. Send for your FREE copies today.

MARLO = HEAT TRANSFER  
Since 1925

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MARLO COIL CO. / ST. LOUIS 10, MO.



Raised up from the floor to facilitate servicing these three 15-hp. units cool sweet water and a storage room in the Isaly plant at Marion. A fourth compressor is kept on hand for immediate installation if a machine breaks down.

**ACCURATE...  
RUGGED...  
COMPACT...**

**Bulletin 836  
PRESSURE SWITCH**

Available for pressures between 30-in. vacuum and 500 lb sq in. Metal bellows operate a reliable snap action precision switch, which has no levers, hinges, or pivots. Range and differential can be easily adjusted in the field. Also, see the Bulletin 837 Temperature Control. Write for full information. Allen-Bradley Co., 1313 S. First St., Milwaukee 4, Wis.



**ALLEN-BRADLEY**

QUALITY  
MOTOR CONTROL





## OFF THE CHEST

### ICE BOXES STILL SELLING, ASSOCIATION CLAIMS

National Association of Ice Refrigerator Manufacturers

Editor:

In your issue of Oct. 20, appears an article regarding a resolution passed by the Electric Dealers Association of Ohio, which I think is unfair to the Ice Refrigerator Industry.

The statement is made in this article that there is no market for ice boxes, either new or used, which I find upon investigation to be untrue.

The reports from dealers in Columbus, Ohio are to the effect, that both new and used ice boxes sell readily in Columbus, and that dealers' principal difficulty is in securing sufficient ice refrigerators for their needs.

I think Mr. Taubeneck, that in fairness to the ice refrigerator industry, that a correction to this report should be made, as I do not believe that your publication would knowing lend itself to a misstatement of facts.

E. G. VAIL

### KEEP UP GOOD WORK!

Electrical Merchandising

Editor:

I always enjoy your editorials and the "Inside Dope" column.

This is just to tell you that I was particularly pleased and in enthusiastic agreement with the lead editorial of your Sept. 15 issue on the subject of home freezers. Keep up the good work.

HARRY C. HAHN

### ENGINEER NEEDED FOR SPECIAL JOB IN S.A.

Overseas Personnel Office  
Standard Oil Co.  
New York City

Editor:

The Creole Petroleum Corp. an affiliate of this company operating in Venezuela, has requested that we assist them in obtaining the services of a top notch refrigeration engineer for a limited consultant assignment in Venezuela.

Their need is for a qualified man who can review their commissary and household refrigeration equipment and discuss with them their future needs in this direction, making recommendations as to size and type of installations required, and giving recommendations as to the manufacturers from whom this equipment should be purchased. In other words, an unbiased review of equipment is proposed with recommendations for their future needs.

It is thought that this might be

accomplished in a period of from 30 to 60 days, for which Creole will pay a generous fee plus expenses.

Should you be in a position to recommend such a man to us we can assure you of the appreciation of both the Creole Petroleum Corp. and this office.

R. D. ETTENSPERGER

### READER'S CYCLE CHART INDICATES DIP AHEAD

Carter Refrigeration Co.  
Pueblo, Col.

Editor:

"Cycles—The Science of Prediction" crystalized something that has been bothering me for a long time. I know that there was some set of basic factors affecting all of us, but I did not know what they were. After I read the book, I took the 150-year weather cycle and combined it with the five basic rhythms to see what kind of a curve would result.

If you modify it to include the war and the value of money, it would look like the composite state of things to date. But what is that dip ahead? The Grand Canyon? The downward trend that started in 1928 was not felt until October, 1929 when the speculative bubble broke. How long can we ride on our present bubble of inflation before it breaks and lets us drop into the pit? And will the Russian Bear be waiting to jump on us when we do?

The next five to seven years will decide the issue. I would hate to be the president elected next time. Remember what happened to Hoover? All good Republicans should vote for a democratic president, preferably Henry Wallace, and let the boulder take the rap. Then the Republican Party could take the country (if any) over and get the credit for the next 28 years of improved conditions.

Small, independent, self-sufficient farmers will probably be able to weather the storm better than any one else. While gold miners will be in a position to really clean up, since they are producing the only sound money in the world. Factory workers, coupon clippers, and city dwellers in general will get the worst of it even if no atom bombs drop.

The most dangerous curve of all is not found in the composite curve. Chart the trend line of the national debt on plain squared paper. It makes a hyperbola and a hyperbola never gets there on the time line. It goes to infinity? 65-cent dollars, 40-cent dollars, or even 10-cent dollars cannot correct this. It looks like there must be zero dollars before things can start over on a sound basis.

The national debt line, the composite chart and world conditions all point to the same thing.

C. L. CARTER

### SCIENCE BOOK EVOKES NEW INTEREST IN CYCLES

Fort Smith, Ark.

Editor:

It will be appreciated if you will furnish me the name of the publisher of "Cycles—The Science of Prediction" as I do not find this book available in this territory.

Your article was most interesting and so is the subject.

John K. Sherman

### WATER COOLER PATENT TO BE PUT ON MARKET

R. R. 4

Burlington, Wis.

Editor:

Eighteen months ago I lost my husband, and he has a water cooler patented. I am just at a loss as how to go ahead putting it on the market. Some one advised me to write you. The coolers are for cooling purposes on commercial jobs. Any information will be greatly appreciated.

MRS. ELMER KORTH

Kansas City Power & Light Co.  
Editor:

Your editorials are always disturbing. Either they require thinking which is painful, or action which is tiring, or reading which requires time.

Will you kindly use the enclosed stamped envelope to give me the name and address of the publisher of "Cycles—The Science of Prediction" by Messrs. Dewey and Dakin?

F. C. WILSON

Lexington, Neb.

Editor:

Last issue with "Inside Dope" has got me going—where do I get the book "Cycles—The Science of Prediction." I never looked in a crystal ball but I believe this is worth reading and thinking about. Thanks.

HAROLD KRASONIEL

Editor's Note: "Cycles—The Science of Prediction" by Messrs. Dewey & Dakin is published by Henry Holt & Co., 257 Fourth Ave., New York 10, N. Y.

**PURO**  
*Electric*  
WATER COOLERS

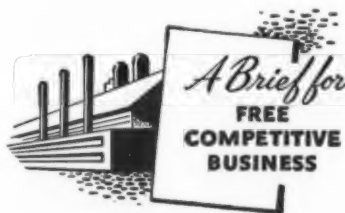
BRANCHES IN PRINCIPAL CITIES  
MAIN OFFICE  
440 LAFAYETTE ST., N.Y. 3, N.Y.  
**PURO FILTER CORP.**  
OF AMERICA  
DRINKING WATER SPECIALISTS  
FOR 50 YEARS

## ANNOUNCEMENT

The Ideal Cooler Corporation is now ready to grant exclusive territorial, distributor franchises to successful organizations.

Louis W. Weiss  
PRESIDENT

IDEAL COOLER CORP., 2953 EASTON AVE.  
ST. LOUIS 6, MO.



IF, WITH improved precision machine tools and equipment, one man is able to produce the work of 10, then 10 men can produce the work of 100. Increased productivity per man per machine has, historically, resulted in higher wages for more workers at shorter working hours. It has also resulted in more of everything that people need and want at lower cost per unit. Increased productivity . . . requiring increased capital investment per worker . . . is basic to a free competitive system of business.

During 16 years of operation, Tecumseh Products Company has increased its equipment investment from \$11,000.00 to \$1,510,000.00 having a current replacement value of nearly \$3,000,000.00.

**TECUMSEH PRODUCTS COMPANY**

Tecumseh, Michigan



**STANGARD**

*Prime Surface*

**COLD PLATES**

For Maximum  
Refrigerating Efficiency



**THE STANGARD-DICKERSON**

CORPORATION

46-76 Oliver Street • Newark 5, N. J.

STANGARD KNOWS REFRIGERATION

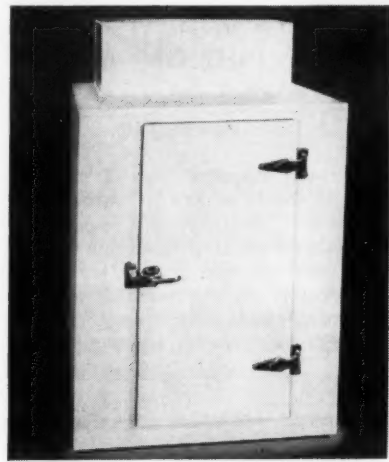
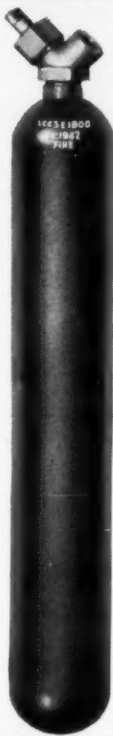
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### Something NEW! CHARGING BOMB

- Speed up assembly line operation.
- Small capacity refrigerant cylinder facilitates more accurate and quicker charging of units carrying small or critical charges.
- Made to your requirements. (size shown 1 1/2" O.D. x 11 1/2" — 14 oz. Freon). Attached to unit on assembly line, transferred as unit moves, eliminating stoppage.
- Construction seamless. Complete with forged brass valve.
- Ideal for field servicing. Bear ICC stamping to permit shipping.

**Fine**  
**PRODUCTS CO.**  
185 N. WABASH AVE. • CHICAGO 1



### Utility Cabinet Designed For Storing Ice-Cream Mix

BELOIT, Wis.—Tekni-Craft, manufacturer of Taylor freezers here, has announced production of a refrigerated utility cabinet, designed primarily for the storage of ice-cream mix. However, the company points out, the cabinet may be used for anything requiring the 35° F. temperature provided.

The cabinet is divided into three sections and has two movable shelves. Capacity of the cabinet is said to be either 21 2 1/2-gal. cans of mix, or 2 10-gal. cans and 7 2 1/2-gal. cans.

A 1/2-hp. hermetically sealed compressor is used, and the cabinet is insulated with 3 in. of cork. Overall dimensions are height, 54 1/2 in. (including 10 in. for compressor); width, 34 3/4 in.; and depth, 27 1/4 in. Weight is 385 lbs.

## What's New

### Hanlan Appliance Tester Acts as Trouble Shooter

LOS ANGELES—A compact, portable, universal-type electrical appliance tester is now being produced by the Hanlan Co., 1419 West Jefferson Blvd., Los Angeles 7.

Designed for appliance repairmen, the new model 60 tester will show the true condition of any electrical appliance in common use today.

The Hanlan test unit may be used for trouble shooting, checking open circuits, continuity, grounds, short circuits. It will test thermostats



Hanlan Appliance Tester

under working conditions, or indicate insulation resistance and leakage due to moisture in wiring systems.

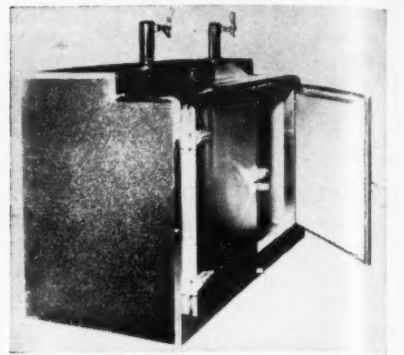
It will detect presence of high resistance grounds and leaks in motor frames and armatures, the manufacturer declares, and will check for live and dead circuits.

It will locate grounded neutral wire of a three-wire system. It is also an aid in the heat regulation of equipment such as solder pots and soldering irons that have no thermostat control.

The instrument carries an a.c. ammeter range of from 0 to 15 amps. This spread covers the most commonly used ranges for appliance testing. A high sensitivity neon tube is provided for making high resistance tests. Since test leads are automatically disconnected when testing on 110 volts, the equipment is unusually safe.

Test leads may be left plugged to tester at all times. The instant working of a flexible switch arrangement provides maximum protection as well as fast operation.

Size of the instrument is 7 1/4 in. high, 6 in. wide, 2 in. deep. Its strong, protective steel case has a durable, instrument crackle finish. Shipping weight of the unit is only 3 lbs. List price is \$14.50.



### Eaton Mfg. Introduces Keg Cooler In 2 Models

CARBONDALE, Ill.—Two models of direct draught keg coolers for taverns, hotels, clubs, and cafes are being introduced by Eaton Mfg. Co.

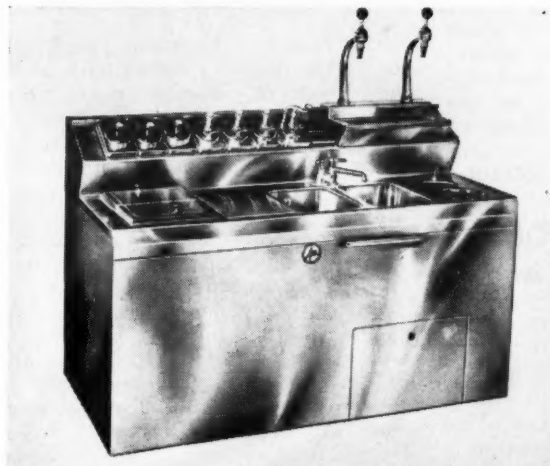
One model, the K-2000, can handle two kegs and has two doors, while the other, the K-300, holds three kegs and has three doors. The smaller unit measures 56 3/4 in. in length, 27 1/4 in. in width, and 41 3/4 in. in height.

The larger model has the same width and height dimensions but measures 82 1/2 in. in length.

Both models use blower coils and have 2-in. walls with cork insulation and waterproof insulation paper.

Cabinet frames and flooring are of wood. The doors, top, and drain are of stainless steel. Front and ends are of 22 gauge steel.

### Ace Cabinet Turns Out New Line of 'Bobtail' Units



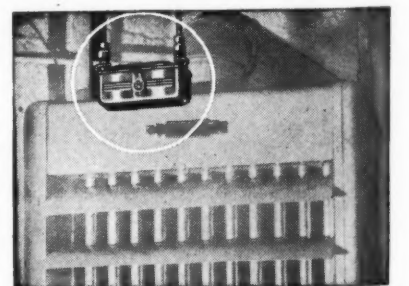
At left is a two-sink model of the cabinet-type bobtail fountains now in production at Ace Cabinet Corp. Two-sink units come in 5 and 6-ft. models; three-sink units in 5, 6, and 7-ft. models.

### New Humidifier Made In 1-Spray, 4-Spray Sizes

CHICAGO — A spraying device called the "Atomick Humidifier" which can be used with heating and air conditioning systems to add humidity to the air is now being manufactured by Maid-O-Mist, Inc. here.

Operated by compressed air, the single spray unit will atomize up to 1 1/4 gals. of water per hour, according to the manufacturer. A 4-spray unit will handle four times as much.

When used with unit heaters, humidification starts when the unit heaters are turned on and continues as long as the heaters remain in operation. In these cases, the hu-



'Atomick Humidifier'

midifier delivers a mist of water vapor directly into the warm air flow produced by the heater, the manufacturer explained.

The unit may be controlled by a humidistat so that the proper humidity is attained, he declared.

# 60 days from now.....

There will be revealed to you an electrifying new development in the evaporative cooling field. From the engineering staff that developed the mighty magic of the Gyro-Spray method of water application—the V-type cooling mats with Labyrinth seal—the Deflecto Grille which gives complete control over the distribution of air comes the new features of the 1948 Evaporative Kooler-aire. This Magic Worker in low-cost comfort cooling gives you Better Performance to offer your customers, Bigger Values to do business with—more profits for you. Hold everything for the 1948 Evaporative Kooler-aire.

UNITED STATES AIR CONDITIONING CORPORATION  
Como Ave. S.E. at 33rd, Minneapolis, Minnesota

## Evaporative Kooler-aire

THE MAGIC WORKER IN LOW COST COMFORT COOLING

## THE FINEST REFRIGERATORS ARE MADE OF STAINLESS STEEL

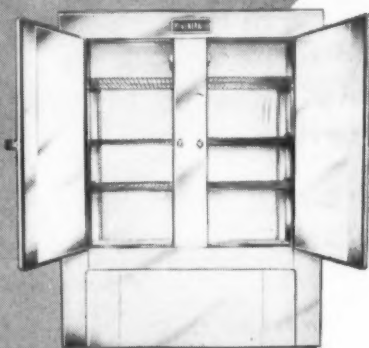
DEPENDABLE—ECONOMICAL—DURABLE

Our PERFECTED Stainless Steel Reach-In Refrigerators are built for LIFETIME SERVICE and operate at minimum cost.

We Also Manufacture:

- DRY BEVERAGE COOLERS
- FROSTED FOOD CASES
- FREEZERS
- DISPLAY CASES
- ICE CREAM CABINETS

IMMEDIATE DELIVERY  
ALL EQUIPMENT GUARANTEED



**GENERAL REFRIGERATORS CORP.**  
MANUFACTURERS SINCE 1928  
NEW YORK 12, N. Y.  
678 BROADWAY





## What's New (Cont.)

### Glass Panel on Candy Case Carries Advertising



cluded a refrigerated candy display case for retail candy sales as the latest addition to the Victor line.

The candy case provides adequate storage space and glass display counters, both cooled by a sealed-in condensing unit. Chrome is utilized on the display trim. Doors are hung on concealed hinges and fastened shut by means of easy opening, self-locking chrome finished fasteners.

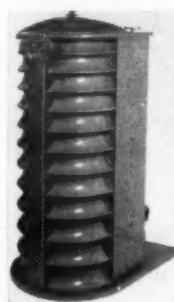
An illuminated horizontal glass panel and its support are utilized to provide attractive eye height advertising messages.

Victor has announced that their production of refrigerated candy cases has been started on an assembly line basis. Nunnally and Hollingsworth Candy Companies are among manufacturers now receiving shipments.

HAGERSTOWN, Md.—Victor Products Corp. here, manufacturer of ice cream cabinets, beverage coolers, walk-in rooms, ice makers, and home and farm freezers, has recently in-

### 'Down-Glow' Space Heater Has Parabolic Deflector

LEBANON, Ind.—U. S. Machine Corp. here is manufacturing a radiant air "Down-Glow" oil space heater



under the Winkler trade name.

Said to employ both direct radiation and orthodox hot air circulation principles, the new heater will comfortably heat small homes where adequate air circulation has been provided.

When operating at its maximum capacity, the unit will produce 50,000 B.t.u. per hour and consume 1/2 gal. of oil. Minimum consumption of the heater is given as 1/16 g.p.h. Tank capacity for the oil

heater is 6 gal., but it is noted that oil may be pumped from an auxiliary tank.

Rate of consumption is regulated by an oil safety flow valve, which compensates for temperature variations affecting the flow of oil.

Both radiant and convection heating are provided through a scientifically designed parabolic deflector grille. The greater portion of the heat is radiated to the floor, which in turn reflects it. A grille opening at the back of the heater allows for the remainder of the heat to rise and warm the air in the room, according to the manufacturer.

A built-in 3-gal. container provides sufficient water to humidify the air for one day, it was pointed out. A newly designed lighting torch and port eliminate the necessity of throwing paper and matches into the burner when lighting the new oil unit.

Lustrous baked, two-tone tan finish is said to harmonize with any color scheme.



### 'Jolly Mixer' Provides Complete Bar Service

NEW YORK CITY—Newest addition to the Supremetaline of bar and beverage service equipment is the "Jolly Mixer" unit, designed for complete service at the bar.

Designed to save time and space, the Jolly Mixer's all-in-one facilities make everything easily accessible—ice cubes, bottles, fruit, sugar, utensils, bottle decapper, cutting board, and refuse receptacle.

The entire front, top, and splash are finished in polished stainless steel. The interior, top lining, and ice service section are finished in unpolished stainless steel. The door is refrigerator type, securely gasketed, fitted with gleaming chrome-plated hardware.

Installation cost is kept at a minimum with the easily accessible waste outlet and opening for refrigeration lines. A 1/4-hp. remote condensing unit is recommended for low cost operation. List price is \$249.

### Air Changer Resembles Steamboat Paddle Wheel

CINCINNATI—A new type air changer to provide summer cooling for homes and small commercial buildings has been announced by the Eagle-Picher Co. here.

The unit cools by drawing fresh night air that has entered the house through opened windows into the attic or basement and expelling the hot air gathered there to the out of doors, the manufacturer explained.

Of a centrifugal design, the Eagle-Picher air changer has a double row of fin-like blades instead of the normal propeller shaped blades, causing it to resemble the paddle wheel of a river steamboat.

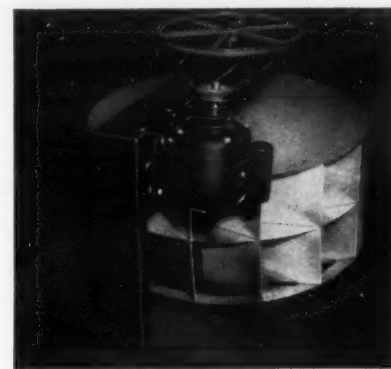
This design, according to the manufacturer, turns the air entering the wheel in a right angle into the space between the blades. The air flows radially outward through these passages.

This construction minimizes the effects of increased static pressure caused by the closing of windows, the manufacturer said. It keeps the capacity of the air changer from falling off when static pressure is increased. It also prevents that pressure from developing noises in the fan.

Quiet operation of the unit is further assured by the use of specially alloyed ball bearings, the floating of all moving parts in natural rubber, and the acoustical treating of the fan blades, the company declared.

The blades are all solidly riveted. The body of the fan itself is made entirely of aluminum.

Because the air changer auto-

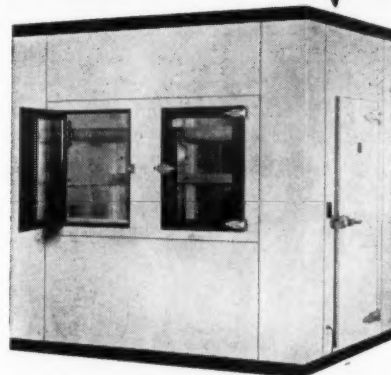


matically adjusts itself to meet all demands from full capacity to no capacity, the motor, operating at recommended speeds, cannot be burned out or overloaded.

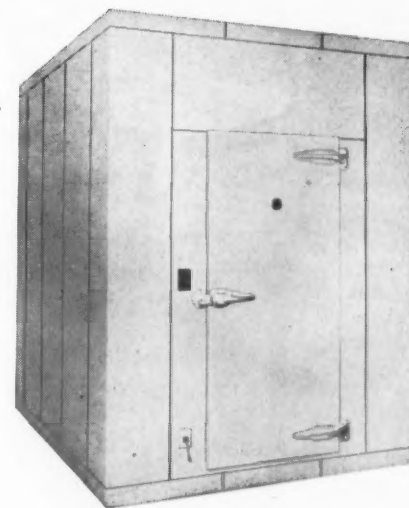
The device can be installed in the attic, basement, or under the floor of a house in either a vertical or horizontal position. Basement installations are recommended by Eagle-Picher engineers, but if an attic installation is made, only 40% as much ceiling opening and 65% as much gable opening are required as compared with ordinary attic fans, the company asserted.

Savings in space are effected because no suction box is required, the firm explained. The fan wheel itself serves this purpose. The air changer can be mounted in a space having only a 27-in. vertical clearance above the ceiling joists for the 36 in. size.

For attic installations, the air changer is available with louvers that open automatically when the motor is turned on and close automatically when it is turned off, the company said. These louvers shut out winter down-drafts through the ceiling openings when the unit is not in use.



• Get the utmost in satisfactory performance with these custom-made sectional steel Walk-In Coolers. Easily and quickly erected, they are adaptable for all purposes. By adding sections or re-arranging doors and walls, they can easily be enlarged or reconstructed.



• Miracool Walk-In Coolers for normal temperature are available with wood floor racks, quarter rails, shelves, and hooks for meats—or with wood floor-racks only, for vegetables and beverages. They can also be supplied with doors for reach-in service, and equipped with meat storage accessories. Obtainable in 6 ft. 6 in. and 8 ft. 6 in. heights, in many width and length sizes, all with 4 in. insulation.

### MIRACOOOL DE LUXE FLORIST COOLER



• Here is beauty combined with practicability; 8 ft. wide, 8 ft. 6 in. high, 4 ft. deep. Constructed of sections, easily erected, storage space can be added to increase depth to any size. Walk-in door available in rear or side. Features heavy steel interior and exterior, choice of white or black outside enamel. Doors and trim in stainless steel, windows triple glazed in live rubber; fluorescent lighted.

Write for new illustrated folder and price list. Deliveries now 10 days or sooner.



**The CLEVELAND REFRIGERATOR CO.**  
2901 EAST 65th STREET • • • CLEVELAND 4, OHIO  
Manufacturers of Custom-Built Refrigerators Over A Quarter Century

### For LIQUID COOLING HEAT-X CAST ALUMINUM COOLERS



LIQUID AND REFRIGERANT CANNOT LEAK INTO EACH OTHER

HEAT-X Cast Aluminum Coolers are simple, sanitary and compact. They require but a small refrigerant charge. All connections are plugged for shipping. Sanitary operation assured with all tubing embedded in aluminum. For Water Coolers, Soda Coolers, Beer Coolers, Cooler Carbonators and Heat Exchangers write:

**THE HEAT-X-CHANGER CO., INC.**  
415 Lexington Avenue, New York 17, N. Y. Brewster, N. Y.



see your **"DETROIT"**

**WHOLESALE**

for  
**Expansion Valves  
Solenoid Valves  
Controls**

**"DETROIT"**

**DETROIT LUBRICATOR COMPANY** General Offices: 5900 TRUMBULL AVENUE  
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Division of AMERICAN RADIATOR & STANDARD SANITARY CORPORATION  
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"Detroit" Heating and Refrigeration Controls • Engine Safety Controls • Float Valves and Oil Burner Accessories

"Detroit" Expansion Valves and Refrigeration Accessories • Stationary and Locomotive Lubricators

EXPORT DEPARTMENT—Box 218, Ridgefield, New Jersey

### 73 Producing Firms Submit Sales Data For Second Quarter

WASHINGTON, D. C.—The tabulated figures on second quarter sales of air conditioning and commercial refrigeration equipment, as released by the U. S. Bureau of the Census, is based on reports submitted by 73 manufacturers.

Estimates were made for a few companies, representing—according to the Bureau of the Census—but a small portion of the total industry, that did not submit their reports in time.

Shipment statistics included in the report apply to equipment actually billed and shipped. These figures are equivalent to completed sales. Complete units delivered on consignment or shipped to a branch warehouse for stocks are not included until such time as they are actually sold. Dollar values shown are the manufacturers' net bill prices, f.o.b. factory.

The tables in the Bureau of the Census report present information on manufacturers' shipments of air conditioning equipment, and components and accessories for air conditioning and commercial refrigeration equipment.

The first part of table 1 presents summary data on domestic and export shipments for the first quarter of 1947, revised since its previous publication. The second part of table 1 presents similar data for the second quarter of 1947.

Table 2 covers detailed information by type of equipment on such products, for the second quarter.

### Air Conditioning, Commercial Refrigeration Shipments for Second Quarter of 1947

Table 1—Air Conditioning Equipment and Components and Accessories for Air Conditioning and Commercial Refrigeration Equipment: Summary of Shipments by Major Class of Product, First and Second Quarters 1947

| Product                            | First Quarter 1947 <sup>1</sup> |                             |   |   |
|------------------------------------|---------------------------------|-----------------------------|---|---|
|                                    | Shipments of Complete Units     |                             | Shipments of Components and Accessories |   |
|                                    | Total<br>No.                    | Total<br>Value<br>(dollars) | Domestic <sup>2</sup><br>No.            | Domestic <sup>2</sup><br>Value<br>(dollars) |
| <b>Total</b>                       |                                 | <b>45,785,901</b>           |   | <b>42,990,342</b>                           |
| Condensing units                   | 309,681                         | 22,209,235                  | 296,650                                 | 20,583,680                                  |
| Ammonia refrigerants               | 332                             | 389,166                     | 298                                     | 350,988                                     |
| Refrigerants except ammonia        | 309,349                         | 21,820,069                  | 296,352                                 | 20,232,692                                  |
| Air cooled                         | 298,101                         | 17,424,555                  | 285,985                                 | 16,204,200                                  |
| Open type                          | 129,653                         | 11,554,429                  | 120,110                                 | 10,572,356                                  |
| Hermetic type                      | 168,448                         | 5,870,126                   | 165,875                                 | 5,631,844                                   |
| Water cooled                       | 11,248                          | 4,395,514                   | 10,367                                  | 4,028,492                                   |
| Compressors, compressor units      | 147,832                         | 8,320,720                   | 135,954                                 | 7,762,050                                   |
| Ammonia refrigerants               | 783                             | 1,996,870                   | 690                                     | 1,791,302                                   |
| Refrigerants except ammonia        | 147,049                         | 6,323,850                   | 135,264                                 | 5,970,748                                   |
| Centrifugal refrigeration machines | 84                              | 1,837,409                   | 75                                      | 1,718,758                                   |
| Heat exchanger equipment           |                                 | 13,418,537                  |   | 12,925,854                                  |
| Evaporative condensers             | 1,627                           | 1,784,052                   | 1,551                                   | 1,717,591                                   |
| Unit coolers                       | 41,570                          | 5,349,699                   | 39,294                                  | 5,102,996                                   |
| Air conditioning                   | 3,929                           | 1,474,532                   | 3,864                                   | 1,451,527                                   |
| Refrigeration                      | 37,641                          | 3,875,167                   | 35,430                                  | 3,651,469                                   |
| Other heat exchanger equipment†    |                                 | 6,284,786                   |   | 6,105,267                                   |

| Section II—Self-Contained Air Conditioning Units and Ice Making Machines |        |           |        |           |       |
|--|--------|-----------|--------|-----------|-------|
| Self-contained air conditioning units                                    | 18,749 | 9,168,212 | 17,096 | 8,477,909 | 1,653 |
| Room type  | 11,656 | 2,691,627 | 10,207 | 2,243,435 | 1,449 |
| Other than room type   | 7,093  | 6,476,585 | 6,889  | 6,234,474 | 204   |
| Ice making machines  | 2,059  | 1,305,134 | 1,819  | 809,640   | 240   |

| Product                            | Second Quarter 1947 <sup>1</sup> |                             |   |   |
|------------------------------------|----------------------------------|-----------------------------|---|---|
|                                    | Shipments of Complete Units      |                             | Shipments of Components and Accessories |   |
|                                    | Total<br>No.                     | Total<br>Value<br>(dollars) | Domestic <sup>2</sup><br>No.            | Domestic <sup>2</sup><br>Value<br>(dollars) |
| <b>Total</b>                       |                                  | <b>49,722,318</b>           |   | <b>45,853,740</b>                           |
| Condensing units                   | 319,542                          | 23,697,656                  | 302,451                                 | 21,702,375                                  |
| Ammonia refrigerants               | 438                              | 533,470                     | 395                                     | 488,132                                     |
| Refrigerants except ammonia        | 319,104                          | 23,164,186                  | 302,056                                 | 21,214,243                                  |
| Air cooled                         | 308,017                          | 18,897,124                  | 292,060                                 | 17,362,437                                  |
| Open type                          | 140,534                          | 12,257,495                  | 128,585                                 | 10,867,251                                  |
| Hermetic type                      | 167,483                          | 6,639,629                   | 165,475                                 | 6,495,186                                   |
| Water cooled                       | 11,087                           | 4,267,062                   | 9,996                                   | 3,851,806                                   |
| Compressors, compressor units      | 181,624                          | 10,124,653                  | 172,181                                 | 9,190,434                                   |
| Ammonia refrigerants               | 1,118                            | 2,152,382                   | 985                                     | 1,670,631                                   |
| Refrigerants except ammonia        | 180,506                          | 7,972,271                   | 171,246                                 | 7,519,803                                   |
| Centrifugal refrigeration machines | 71                               | 1,558,179                   | 58                                      | 1,378,533                                   |
| Heat exchanger equipment           |                                  | 14,341,830                  |   | 13,582,398                                  |
| Evaporative condensers             | 1,548                            | 1,856,392                   | 1,467                                   | 1,777,389                                   |
| Unit coolers                       | 42,815                           | 5,668,164                   | 39,676                                  | 5,306,883                                   |
| Air conditioning                   | 5,087                            | 1,767,027                   | 4,796                                   | 1,701,872                                   |
| Refrigeration                      | 37,728                           | 3,901,137                   | 34,880                                  | 3,605,011                                   |
| Other heat exchanger equipment†    |                                  | 6,817,274                   |   | 6,498,126                                   |

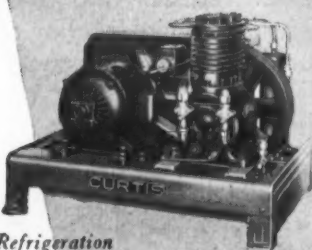
| Section II—Self-Contained Air Conditioning Units and Ice Making Machines |        |            |        |           |       |
|--|--------|------------|--------|-----------|-------|
| Self-contained air conditioning units                                    | 25,240 | 10,626,892 | 23,274 | 9,767,959 | 1,966 |
| Room type  | 18,397 | 4,056,034  | 16,799 | 3,486,851 | 1,598 |
| Other than room type   | 6,843  | 6,570,858  | 6,475  | 6,281,108 | 368   |
| Ice making machines  | 973    | 517,099    | 897    | 489,861   | 76    |

<sup>1</sup>Continental United States. <sup>2</sup>Includes Canada, Mexico, and United States territories. <sup>3</sup>Includes condensers and liquid coolers, shell and tube and shell and coil types, as well as fin coils (heating and cooling), and plate type evaporators. <sup>4</sup>Revised.

If You Want to Sell  
the Most Profitable  
AIR CONDITIONING MARKET—

**Standardize  
on CURTIS**

Curtis Packaged  
Air Conditioners  
—3, 5, 7½, 10,  
15 tons.



Curtis Refrigeration  
Units ¼ to 30 H.P.,  
Air and Water Cooled.

The Curtis line of Packaged Type Air Conditioning Units—ranging from 3 to 15 tons—enables you to easily sell this most profitable market. Here you're assured of quick, easy installation and thoroughly satisfied customers.

Curtis Air Conditioning Units are completely assembled and thoroughly tested at the factory. There's no guesswork in the field, for Curtis precision construction and advanced engineering are built into every piece of Curtis equipment you install.

Each Curtis Air Conditioning Unit cools, dehumidifies, filters and circulates the air and can be adapted for winter heating, too.

Write to Curtis for full information on Curtis equipment for almost any air conditioning or refrigeration need.

**CURTIS REFRIGERATING MACHINE DIVISION**

of Curtis Manufacturing Company

1912 Kienlen Avenue

St. Louis 20, Missouri

**ENGINEERED  
to fit..**

**FORGED FLARE NUTS  
AND FITTINGS**

Prompt Shipment on most items

**Electrimatic**

2100 INDIANA AVE CHICAGO 16 ILLINOIS



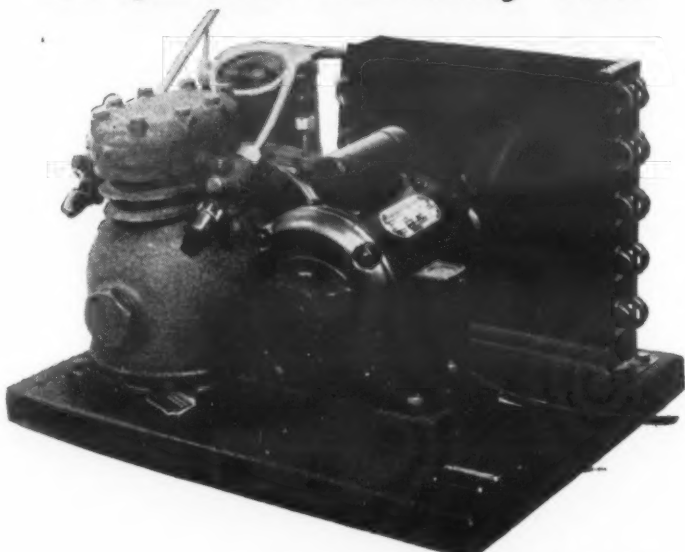
**Table 2—Air Conditioning Equipment and Components and Accessories for Air Conditioning and Commercial Refrigeration Equipment: Shipments by Type of Product, Second Quarter 1947**

| Product                                     | Shipments of Complete Units |                 | Shipments of Components and Accessories |                 | No. of Comps. Made by Reporting Firms and No. of Units Plants Reported as Shipped |                 |
|---|-----------------------------|-----------------|---|-----------------|---|-----------------|
|   | Total No.                   | Value (dollars) | Domestic No.                            | Value (dollars) | Export No.  | Value (dollars) |
| <b>Section I—Components and Accessories</b> |                             |                 |   |                 |   |                 |
| Total                                       | 49,722,318                  | 45,853,740      | 3,868,578                               | 3,868,578       | 69  | 3,868,578       |
| Condensing units, total                     | 319,542                     | 23,697,656      | 302,451                                 | 21,702,375      | 17,091  | 1,995,281       |
| Refrigerants except ammonia, total          | 319,104                     | 23,164,186      | 302,056                                 | 21,214,243      | 17,048  | 1,949,943       |
| Air cooled, total                           | 308,017                     | 18,897,124      | 292,060                                 | 17,362,437      | 15,957  | 1,534,687       |
| Open type, total                            | 140,534                     | 12,257,495      | 126,585                                 | 10,867,251      | 13,949  | 1,390,244       |
| 1/2 hp. and under                           | 5,493                       | 235,446         | 4,292                                   | 168,298         | 1,201   | 67,148          |
| 3/4 hp.                                     | 31,977                      | 1,874,285       | 28,806                                  | 1,653,824       | 3,171   | 220,461         |
| 1 hp.                                       | 57,513                      | 4,052,648       | 52,489                                  | 3,660,777       | 5,024   | 391,871         |
| 1 1/2 hp.                                   | 24,186                      | 2,346,229       | 22,079                                  | 2,126,046       | 2,107   | 220,183         |
| 2 hp.                                       | 11,655                      | 1,618,797       | 10,699                                  | 1,478,939       | 956   | 139,858         |
| 3 hp.                                       | 4,887                       | 876,683         | 4,244                                   | 758,736         | 643   | 117,947         |
| 4 hp.                                       | 2,295                       | 537,325         | 1,945                                   | 451,667         | 350   | 85,658          |
| 5 hp.                                       | 1,722                       | 456,371         | 1,410                                   | 368,873         | 312   | 87,498          |
| 3 and 5 hp.                                 | 806                         | 259,711         | 621                                     | 200,091         | 185   | 59,620          |
| Hermetic type                               |                             |                 |   |                 |   |                 |
| total                                       | 167,483                     | 6,639,629       | 165,475                                 | 6,495,186       | 2,008   | 144,443         |
| 1/2 hp. and under                           | 110,458                     | 2,793,659       | 109,586                                 | 2,759,104       | 872   | 34,555          |
| 3/4 hp.                                     | 31,611                      | 2,128,858       | 31,281                                  | 2,104,530       | 330   | 24,328          |
| 1 hp.                                       | 21,546                      | 1,352,285       | 20,989                                  | 1,300,161       | 557   | 52,124          |
| 1 1/2 hp.                                   | 3,868                       | 364,827         | 3,619                                   | 331,391         | 249   | 33,436          |
| Water cooled, total                         | 11,087                      | 4,267,062       | 9,996                                   | 3,851,806       | 1,091   | 415,256         |
| 1/2 hp. and under                           | 110                         | 11,649          | 104                                     | 11,132          | 6   | 517             |
| 3/4 hp.                                     | 1,277                       | 161,356         | 1,112                                   | 138,102         | 165   | 23,254          |
| 1 hp.                                       | 1,159                       | 183,072         | 1,046                                   | 158,917         | 143   | 24,155          |
| 1 1/2 hp.                                   | 1,605                       | 319,795         | 1,477                                   | 294,015         | 128   | 25,780          |
| 2 hp.                                       | 1,522                       | 372,656         | 1,369                                   | 334,698         | 153   | 37,958          |
| 3 hp.                                       | 995                         | 268,934         | 966                                     | 260,681         | 29  | 8,253           |
| 4 hp.                                       | 1,271                       | 432,414         | 1,162                                   | 395,909         | 109   | 36,505          |
| 5 hp.                                       | 1,329                       | 637,080         | 1,154                                   | 556,736         | 175   | 80,344          |
| 7 1/2 hp.                                   | 666                         | 511,744         | 587                                     | 448,847         | 79  | 62,887          |
| 10 hp.                                      | 625                         | 545,164         | 581                                     | 508,283         | 44  | 36,881          |
| 15 hp.                                      | 317                         | 381,145         | 281                                     | 337,964         | 36  | 43,181          |
| 20 hp.                                      | 58                          | 92,005          | 52                                      | 83,394          | 6   | 8,611           |
| 25 hp.                                      | 63                          | 92,274          | 53                                      | 84,707          | 10  | 7,567           |
| 30 hp.                                      | 29                          | 66,757          | 27                                      | 64,644          | 2   | 2,113           |
| 40 hp.                                      | 27                          | 65,476          | 24                                      | 57,772          | 3   | 7,704           |
| 50 hp. and over                             | 34                          | 125,541         | 31                                      | 116,005         | 3   | 9,536           |
| Ammonia refrigerants                        |                             |                 |   |                 |   |                 |
| Reciprocating water                         |                             |                 |   |                 |   |                 |
| cooled, total                               | 438                         | 533,470         | 395                                     | 488,132         | 43  | 45,338          |
| 3 hp. and under                             | 26                          | 13,353          | 12                                      | 5,220           | 14  | 8,143           |
| 5 hp.                                       | 86                          | 66,800          | 80                                      | 61,471          | 6   | 5,329           |
| 7 1/2 hp.                                   | 63                          | 65,736          | 59                                      | 62,039          | 4   | 3,697           |
| 10 hp.                                      | 111                         | 128,064         | 103                                     | 117,935         | 8   | 10,129          |
| 15 hp.                                      | 96                          | 138,803         | 91                                      | 132,009         | 5   | 6,794           |
| 20 hp. and over                             | 56                          | 120,704         | 50                                      | 109,458         | 6   | 11,246          |
| Compressors and compressor units, total     | 181,624                     | 10,124,653      | 172,181                                 | 9,190,434       | 9,443   | 934,219         |
| Refrigerants except ammonia, total          | 180,506                     | 7,972,271       | 171,246                                 | 7,519,803       | 9,260   | 452,468         |
| 1/2 hp. and under                           | 142,641                     | 3,672,975       | 136,946                                 | 3,569,182       | 5,695   | 103,793         |
| 3/4 hp.                                     | 21,957                      | 707,111         | 21,374                                  | 689,549         | 583   | 17,562          |
| 1 hp.                                       | 9,204                       | 317,342         | 7,177                                   | 262,557         | 2,027   | 54,785          |
| 1 1/2 hp.                                   | 1,377                       | 73,958          | 1,162                                   | 62,327          | 215   | 11,631          |
| 2 hp.                                       | 497                         | 29,777          | 219                                     | 11,077          | 278   | 18,700          |
| 3 hp.                                       | 74                          | 6,677           | 66                                      | 5,835           | 8   | 842             |
| 4 hp.                                       | 863                         | 70,169          | 708                                     | 58,142          | 155   | 12,027          |
| 5 hp.                                       | 331                         | 42,701          | 302                                     | 38,469          | 29  | 4,232           |
| 7 1/2 hp.                                   | 1,341                       | 298,894         | 1,253                                   | 283,819         | 88  | 15,075          |
| 10 hp.                                      | 225                         | 90,207          | 212                                     | 83,497          | 13  | 6,710           |
| 15 hp.                                      | 459                         | 251,277         | 403                                     | 213,327         | 56  | 37,950          |
| 20 hp.                                      | 355                         | 322,118         | 330                                     | 298,740         | 25  | 23,378          |
| 25 hp.                                      | 148                         | 185,470         | 136                                     | 171,737         | 12  | 13,733          |
| 30 hp.                                      | 460                         | 511,569         | 437                                     | 472,988         | 23  | 38,581          |
| 40 hp.                                      | 85                          | 158,624         | 79                                      | 148,422         | 6   | 10,202          |
| 50 hp.                                      | 230                         | 574,533         | 226                                     | 566,397         | 4   | 8,136           |
| 60 hp.                                      | 123                         | 219,998         | 87                                      | 158,293         | 36  | 61,705          |
| 75 hp.                                      | 67                          | 141,367         | 60                                      | 127,941         | 7   | 13,426          |
| 100 hp.                                     | 31                          | 103,580         | 31                                      | 103,580         | 5   | 25,505          |
| 100 hp. and over                            | 38                          | 193,924         | 38                                      | 193,924         | 29  | 4,400           |
| Ammonia refrigerants, total                 | 1,118                       | 2,152,382       | 935                                     | 1,670,631       | 183   | 481,751         |
| 7 1/2 hp. and under                         | 172                         | 90,538          | 140                                     | 75,454          | 32  | 15,084          |
| 10 hp.                                      | 120                         | 83,269          | 106                                     | 74,257          | 14  | 9,012           |
| 15 hp.                                      | 144                         | 111,822         | 123                                     | 94,204          | 21  | 17,618          |
| 20 hp.                                      | 134                         | 153,879         | 110                                     | 120,385         | 24  | 33,494          |
| 25 hp.                                      | 85                          | 128,138         | 61                                      | 88,845          | 24  | 39,293          |
| 30 hp.                                      | 87                          | 141,196         | 81                                      | 131,751         | 6   | 9,445           |
| 40 hp.                                      | 58                          | 103,768         | 52                                      | 91,978          | 6   | 11,790          |
| 50 hp.                                      | 74                          | 183,267         | 64                                      | 162,041         | 10  | 21,226          |
| 60 hp.                                      | 45                          | 114,410         | 37                                      | 87,921          | 8   | 26,489          |
| 75 hp.                                      | 51                          | 165,848         | 41                                      | 134,101         | 10  | 31,747          |
| 100 hp.                                     | 78                          | 273,872         | 65                                      | 232,924         | 13  | 40,948          |
| 100 hp. and over                            | 70                          | 602,375         | 55                                      | 376,770         | 15  | 225,605         |

(Tabulation Continued on Page 26)

## MULTIPLEX

### Refrigeration Condensing Units



NOW AVAILABLE

Complete with motors in  
1/4, 1/3, 1/2, and 3/4 HP sizes  
Inquiries From Jobbers Invited

Multiplex Manufacturing Co., Berwick, Penna.

## Palace Corp. To Produce Pre-Fabricated Houses Made of Aluminum

FLINT, Mich.—Keep your eye peeled for pre-fabricated single and duplex aluminum houses complete with refrigerator, electric range, sink, and cabinet space.

Palace Corp. here plans to turn them out on an assembly line basis at a sales price of \$5,000-\$6,000 f.o.b. Flint, according to plans outlined by factory officials, the electrical fixtures, kitchen unit, electric hot water heater, oil heater, and bathroom will be installed at the plant.

That would leave only the foundation, electrical, and plumbing connections to be made at the site.

Utilizing aluminum stampings employed in the manufacture of the company's house trailers, Palace Corp. claims to be able to turn out houses in three separate 29 ft. x 15 ft. floor plans. President David D. Arehart figures production at about nine units daily, taking into consideration the output of a subsidiary in Williamston.

The aluminum houses can be assembled ready for occupancy in two days, the company said.

## New Training Program Handles 1 to 3 Salesmen Only Per Session

SOUTH BEND, Ind.—In an "about face" from mass training methods, 250 wholesale salesmen of Bendix Home Appliances' distributors are now conducting streamlined refresher training courses for one to three retail salesmen.

Why this new type of individualized instruction? A. C. Olander, retail merchandising manager for Bendix, believes it assures better reception, conception, and recollection, and provides immediate opportunity to ask and answer questions.

Using an 8 by 13-in. flip chart, the instructors open the 90-minute course by telling the sales people that "in the Bendix automatic home laundry you have the key to the greatest opportunity in the history of appliance selling."

Succeeding sections detail "The Five Keys to Signed Orders." Salesmen are advised to find and qualify the prospect, classify the prospect, demonstrate to every prospect, make objections work, and ask for the order.

Instructors leave with each trainee a 5 1/2 by 8 1/2-in. replica booklet of the flip chart, which is used for review. Each trainee is given a test on the course when the instructor visits the dealer again.

Twenty-one suggestions are offered to find qualified prospects. In similar detail, other essentials to effective selling are implemented for the trainees' benefit.

The courses are due to be completed before Dec. 31.

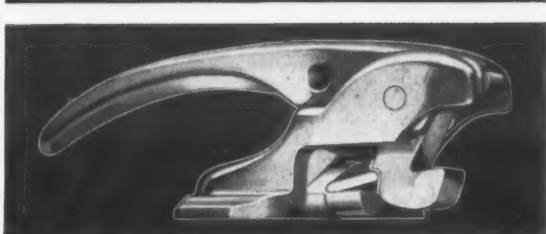
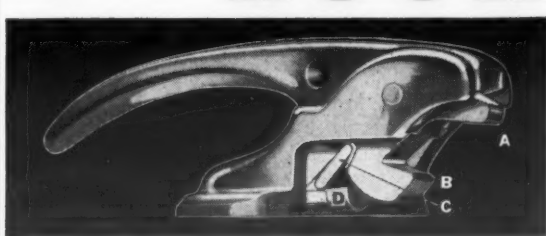
## Coldew Issues '48 Catalog

SOUTH GATE, Calif.—The 1948 catalog of Coldew commercial refrigeration equipment was issued here recently by the Coldew Corp.

The catalog contains descriptive material, specifications, and price list on the firm's deluxe and remote refrigerators, walk-in refrigerators, reach-in coolers, and cooler doors.

# FOR a POSITIVE SEAL

Install a  
**POSITIVE LOCK**



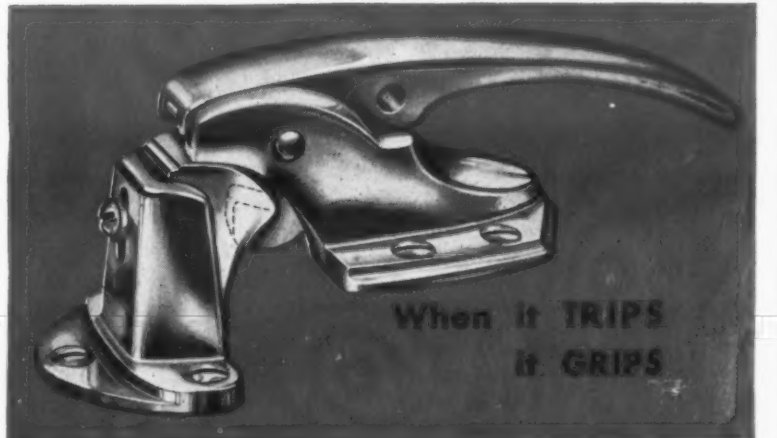
## THE LOCK WITH THE Living Action

This patented lock construction never relaxes its upward grip. When the trigger (A) touches the strike, that under-shot jaw (B) takes hold like a bulldog . . . with constant pressure from a powerful coil spring operating on an off-center plate (C) through the concealed bolt (D). That's why we call it "The Lock with the Living Action" . . . a principle exclusive with products of the Grand Rapids Brass Company.

by America's Quality Manufacturers of Commercial Refrigerator Hardware

## Mr. Service Man:

Here's a money-making natural for you! Install new Grand Rapids Brass Co. locks and hinges to replace damaged, unsightly, worn-out hardware. You can guarantee a perfect, heat-proof seal . . . savings in power and in perishable merchandise that pay for the job. It's an easy way to extra profits . . . our new service manual tells how. Write for your copy—TODAY!



When it TRIPS  
it GRIPS

# Grand Rapids Brass Company

Makers of Dependable Refrigerator Hardware for over 40 Years  
Grand Rapids 1, Michigan

**1<sup>ST</sup> IN LINE AT THIRST TIME!**

OASIS—made by the world's largest maker of electric drinking water coolers—is first in line when it comes to delivering complete thirst relief at low cost. Write for details.

The EBCO Manufacturing Co.  
401 W. Town St., Cols. 8, Ohio

**Sales Representatives WANTED**

We wish to correspond with several high-grade salesmen with refrigeration background to fill positions in our rapidly expanding field sales organization. Liberal compensation assured. Address Sales Department, Amana Society, Refrigeration Division, Amana, Iowa.

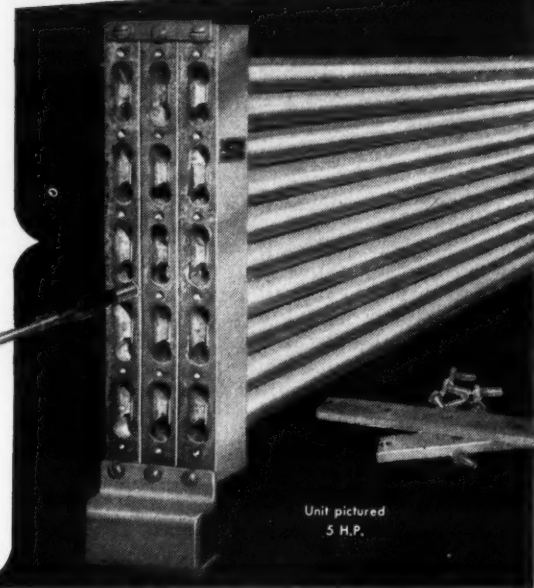
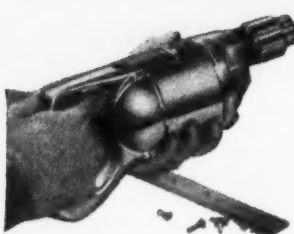
# KRACK

ENGINEERED  
UNIT COOLERS  
FIN COILS  
AIR CONDITIONING  
Refrigeration Appliances, Inc.  
923 W. Lake St., Chicago 7, Ill.



*This is the Business End of . . .*

## HALSTEAD & MITCHELL Cleanable CONDENSERS



Unit pictured  
5 H.P.

HM units combine two features never before obtainable in tube-within-a-tube water-cooled condensers; (1) They're CLEANABLE—the water tubes are easily accessible at both ends for the spiral cleaning tool to restore the interior water surfaces to "new-unit" efficiency. (2) A TRUE-COUNTER-FLOW relationship is achieved between the coolant and the refrigerant through a unique seamless copper tube-within-a-tube construction that makes obsolete most types of similar water-cooled condensers. Thus, water and space requirements are reduced substantially and a most economical operation is obtained.

Seamless Copper Tubes  
Brass Headers Machined and Brazed

HM Condensers available  
from 1/2 to 10 H.P. from  
wholesalers in principal cities.



*Halstead & Mitchell*

OFFICES: Bessemer Building, Pittsburgh 22, Pa.

### Keeps 'Em from Sprouting

## 40 Degrees, Low Humidity Needed In Storage Plant For Flower Bulbs

ST. AUGUSTINE, Fla.—A cold storage plant, designed to maintain the constant 40° F. temperature and low humidity needed for the storage of gladiolus and other flower bulbs, was constructed recently at the Sunshine Gardens, 14 miles west of here, by P. D. McRae, local commercial refrigeration specialist.

The plant, which has already stored more than 3,000,000 gladiolus bulbs without utilizing all the available space, measures 50 ft. by 35 ft. by 8 1/2 ft.

It is cooled by three 2 hp. Larkin double blower coils powered by three 2-hp. Copeland condensing units. Thermostatic controls hold the temperature within 2° of the average 40° F.

To maintain the required dryness, the entire cold storage room is insulated with rock wool and the ceiling is painted with a special water resistant treatment.

Dry, cool temperatures are needed to keep the bulbs from sprouting during the summer months, officials of Sunshine Gardens explained.

### Bakersfield Appl. Opens Branch

BAKERSFIELD, Calif.—The Bakersfield Appliance Co., whose main store is at 2255 Chester Ave. in downtown Bakersfield, has opened a second store across town in the new Tejon Theater Bldg.

Table 2 (Cont.)—Air Conditioning Equipment and Components  
And Accessories for Air Conditioning and Commercial  
Refrigeration Equipment: Shipments by Type of  
Product, Second Quarter 1947

| Product  | Shipments of Complete Units |                 | Shipments of Complete Units |                 | No. of Plants Reported |
|--|-----------------------------|-----------------|-----------------------------|-----------------|------------------------|
|  | Total No.                   | Value (dollars) | Domestic* No.               | Value (dollars) |                        |
| Centrifugal refrigeration machines (water and brine chilling), total | 71                          | 1,558,179       | 58                          | 1,378,533       | 13                     |
| 200 hp. and under  | 30                          | 391,707         | 17                          | 212,061         | 13                     |
| 201 hp. and over   | 41                          | 1,166,472       | 41                          | 1,166,472       | 3                      |
| Heat exchanger equipment, total                                      | 14,341,830                  |                 | 13,582,398                  |                 | 759,432                |
| Evaporative condensers, total  | 1,548                       | 1,856,392       | 1,467                       | 1,777,389       | 81                     |
| Under 3 tons   | 29                          | 5,792           | 29                          | 5,792           | 21                     |
| 3 to 5 tons  | 205                         | 52,893          | 192                         | 49,088          | 13                     |
| 5.1 to 7.5 tons  | 91                          | 39,893          | 82                          | 35,299          | 9                      |
| 7.6 to 10 tons   | 169                         | 100,106         | 160                         | 94,252          | 9                      |
| 10.1 to 15 tons  | 170                         | 125,484         | 158                         | 117,593         | 12                     |
| 15.1 to 20 tons  | 82                          | 66,198          | 80                          | 64,604          | 2                      |
| 20.1 to 30 tons  | 302                         | 350,901         | 290                         | 338,844         | 12                     |
| 30.1 to 50 tons  | 273                         | 474,614         | 253                         | 441,228         | 20                     |
| 50.1 to 100 tons   | 211                         | 585,289         | 208                         | 578,137         | 3                      |
| Over 100 tons  | 16                          | 55,222          | 15                          | 52,552          | 1                      |
| Unit coolers, total  | 42,815                      | 5,668,164       | 39,676                      | 5,306,883       | 3,139                  |
| Air conditioning remote type, total                                  | 5,087                       | 1,767,027       | 4,796                       | 1,701,872       | 291                    |
| 3 tons and under   | 2,794                       | 238,894         | 2,566                       | 211,908         | 228                    |
| 3.1 to 5 tons  | 605                         | 206,882         | 578                         | 197,483         | 27                     |
| 5.1 to 10 tons   | 524                         | 286,503         | 511                         | 282,232         | 13                     |
| 10.1 to 25 tons  | 824                         | 637,300         | 809                         | 620,211         | 15                     |
| Over 25 tons   | 340                         | 397,448         | 332                         | 390,083         | 8                      |
| Refrigeration, total   | 37,728                      | 3,901,137       | 34,880                      | 3,605,011       | 2,848                  |
| Ceiling and wall mounted, total                                      | 36,468                      | 2,687,881       | 33,689                      | 2,461,554       | 2,779                  |
| 1,000 B.t.u./hr. and under   | 519                         | 12,415          | 509                         | 11,968          | 10                     |
| 1,001 to 2,000 B.t.u./hr.  | 8,306                       | 290,706         | 7,940                       | 275,845         | 366                    |
| 2,001 to 4,000 B.t.u./hr.  | 7,474                       | 318,578         | 7,062                       | 296,068         | 412                    |
| 4,001 to 6,000 B.t.u./hr.  | 4,275                       | 251,018         | 3,754                       | 217,790         | 521                    |
| 6,001 to 8,000 B.t.u./hr.  | 5,072                       | 393,132         | 4,652                       | 359,400         | 420                    |
| 8,001 to 12,000 B.t.u./hr.   | 3,973                       | 416,057         | 3,580                       | 378,506         | 393                    |
| 12,001 to 18,000 B.t.u./hr.  | 4,255                       | 501,029         | 3,629                       | 422,528         | 626                    |
| Over 18,000 B.t.u./hr.   | 2,594                       | 504,946         | 2,563                       | 499,449         | 31                     |
| Floor mounted dry type, total  | 862                         | 633,020         | 821                         | 598,784         | 41                     |
| 5 tons and under   | 390                         | 197,867         | 376                         | 188,883         | 14                     |
| 5.1 to 7.5 tons  | 233                         | 185,279         | 227                         | 179,483         | 6                      |
| 7.6 to 10 tons   | 89                          | 96,392          | 85                          | 92,373          | 4                      |
| 10.1 to 15 tons  | 108                         | 102,895         | 91                          | 87,458          | 17                     |
| Over 15 tons   | 42                          | 50,587          | 42                          | 50,587          | 7                      |
| Floor mounted spray type, total                                      | 398                         | 580,236         | 370                         | 544,673         | 28                     |
| 5 tons and under   | 16                          | 13,204          | 15                          | 12,524          | 1                      |
| 5.1 to 7.5 tons  | 159                         | 249,368         | 157                         | 248,142         | 2                      |
| 7.6 to 10 tons   | 35                          | 42,248          | 35                          | 42,248          | 6                      |
| 10.1 to 15 tons  | 102                         | 128,864         | 97                          | 124,753         | 5                      |
| Over 15 tons   | 86                          | 146,552         | 66                          | 117,006         | 20                     |
| Other heat exchanger equipment, total                                | 6,817,274                   |                 | 6,498,126                   |                 | 319,148                |
| Condensers, shell and tube and shell and coil                        | 1,119,249                   |                 | 989,259                     |                 | 129,990                |
| Shell and tube liquid coolers  | 307,737                     |                 | 291,325                     |                 | 16,412                 |
| Shell and coil liquid coolers  | 75,647                      |                 | 74,517                      |                 | 1,130                  |
| Fin coils—heating other than forced air units                        | 1,209,399                   |                 | 1,204,970                   |                 | 4,429                  |
| Fin coils—cooling other than forced air units                        | 2,832,530                   |                 | 2,711,918                   |                 | 120,612                |
| Evaporators, plate type  | 1,272,712                   |                 | 1,226,137                   |                 | 46,575                 |

### Section II—Self-Contained Air Conditioning Units and Ice Making Machines

|  |        |            |        |           |       |         |    |
|--|--------|------------|--------|-----------|-------|---------|----|
| Self-contained air conditioning units, total | 25,240 | 10,626,892 | 23,274 | 9,767,959 | 1,966 | 858,933 | 16 |
| Room type, total                             | 18,397 | 4,056,034  | 16,799 | 3,486,851 | 1,598 | 589,183 | 6  |
| Window sill type                             | 11,624 | 2,079,802  | 11,591 | 2,073,522 | 33    | 6,280   | 4  |
| Floor type                                   | 6,773  | 1,976,232  | 5,208  | 1,413,329 | 1,565 | 562,903 | 4  |
| Other than room type, total                  | 6,843  | 6,570,858  | 6,475  | 6,281,108 | 368   | 289,750 | 15 |
| 3 tons and under                             | 2,821  | 1,818,097  | 2,627  | 1,694,344 | 194   | 123,753 | 12 |
| 5 tons                                       | 3,091  | 2,803,195  | 2,938  | 2,683,887 | 153   | 119,308 | 13 |
| 7.5 tons                                     | 328    | 434,816    | 320    | 424,457   | 8     | 10,359  | 8  |
| 10 tons                                      | 280    | 566,908    | 272    | 548,708   | 8     | 18,195  | 7  |
| 15 tons                                      | 155    | 351,236    | 152    | 343,411   | 3     | 7,825   | 6  |
| 20 tons                                      | 65     | 185,489    | 65     | 185,489   | —     | —       | 3  |
| Over 20 tons                                 | 103    | 411,122    | 101    | 400,812   | 2     | 10,310  | 3  |
| Ice making machines                          | 973    | 517,099    | 897    | 489,861   | 76    | 27,238  | 6  |

\*Continental United States. †Includes Canada, Mexico, and United States Territories.  
‡First quarter data for number of compressors manufactured by reporting plants and incorporated into units reported as shipped are being revised. The revised data will be published in an early release.

### New Refrigeration for Neb. Processing Plants

OMAHA, Neb.—Commercial refrigeration installations have been made recently or are being made in three Nebraska plants, while the Char-Gale Mfg. Co. has completed construction of a \$75,000 plant at 3701 North 16th St.

The firm makes aluminum air conditioning and furnace fittings, has been in Omaha three years and is the only manufacturing unit of the company outside the home plant in Minneapolis.

Fairmont Foods, Inc., is installing equipment in its new ice cream manufacturing department in a new building at 12th and Jackson Sts.

At Oshkosh, Neb., Wes Dunn and Ross Jackson have opened a turkey-processing plant with modern refrigeration facilities. A receiving room maintaining a temperature of 30° has been provided, adjoining a 15° room, which in turn opens into a sub-zero room for freezing.

Floyd Payton is constructing a frozen food locker plant at Falls City.

### Sept. Retail Sales Up Over August and 1946

WASHINGTON, D. C.—Spurred on by the cashing in of G. I. terminal leave bonds and by the cooler weather, retail sales soared to new peaks in September, the U. S. Commerce Department has reported.

The \$9,285 million sales volume done during the month exceeded that of September, 1946 by 13%. It was up 5% over August and 3% above the previous high scored in June, the department said, after adjustments were considered.

Home furnishing stores, which had shown dips during July and August, jumped 7% in September and were 4% above the June peak, it added.

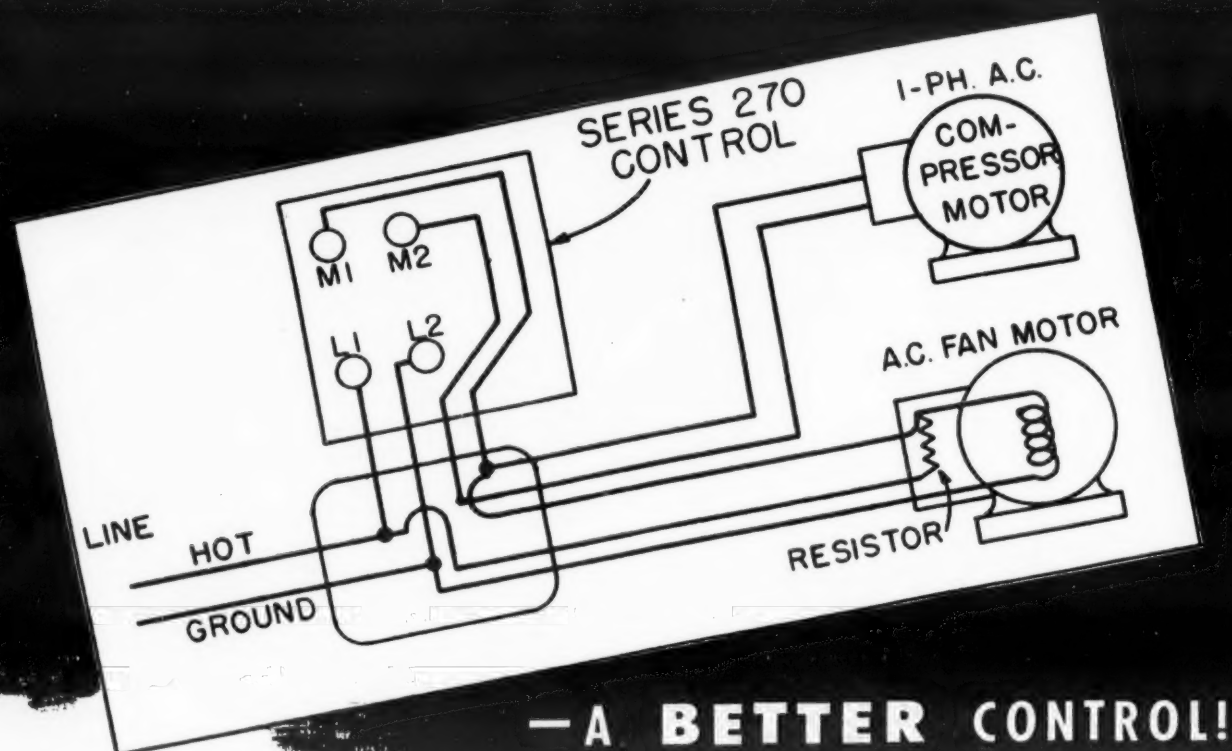
### Cummings, Hall Form West Los Angeles Co.

LOS ANGELES—West Los Angeles Refrigeration Co. is the firm name under which L. L. Cummings and J. C. Hall, Jr., have published a certificate that they are conducting business at 9011 Santa Monica Blvd.

CONDENSING  
UNITS  
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STOCK  
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REFRIGERATION  
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SERVICE PARTS COMPANY  
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## FOR WALK-IN COOLERS, DISPLAY CASES, ETC.



—A BETTER CONTROL!



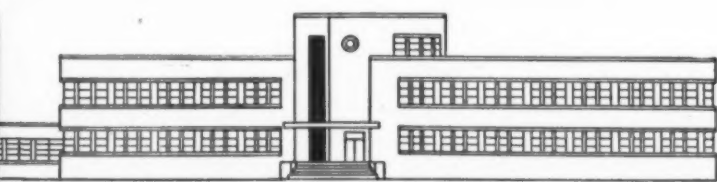
Series 270 and 272 PENN "Single" temperature or low side pressure controls. Also (not shown) Series 271 and 273 PENN "Dual" Controls which combine in one unit a temperature or low side pressure actuated mechanism and built-in high pressure safety cut-out.

It gives greater dependability! It gives more efficient operation! So it's only natural that more and more refrigeration and air conditioning men want to use the new PENN 270 Series Control for all types of applications.

Here, for instance, is a special AC hookup for walk-in coolers, display cases, etc., with "high-low" speed circulating fan. Note that the resistor (or reactor) is wired in such a manner that it is shunted when switch contacts are closed. This causes "high" speed fan operation during compressor "on" periods; during compressor "off" periods, the resistor is in series with fan motor, causing "low" speed operation.

Never before did any control provide so much versatility, simplicity, efficiency and dependability. Investigate the PENN 270 Series Control. It's the first and only refrigeration control to have a load-carrying, 2-pole switch. You'll agree that it's new! It's different! It's better! Write Penn Electric Switch Co., Goshen, Indiana. In Canada: Penn Controls, Ltd., Toronto, Ontario. Export Division: 13 E. 40th Street, New York 16, U. S. A.

**PENN**



**AUTOMATIC CONTROLS**

FOR HEATING, REFRIGERATION, AIR CONDITIONING, ENGINES, PUMPS AND AIR COMPRESSORS



## CMH Talks To Interest Air Conditioning, Heating, And Ventilating Fields

CLEVELAND—A number of topics of interest to air conditioning, plumbing, heating, sheet metal, and ventilating fields will be discussed at the Conference on Materials Handling which will be a feature of the second National Materials Handling Exposition to be held at the Public Auditorium, Cleveland, Jan. 12-16, inclusive.

The major theme of the discussion is cost reduction through improved handling and discussion subjects have been selected for their widest appeal from the practical, operating standpoint.

Keenest interest in the air conditioning, plumbing, heating, sheet metal, and ventilating fields will center on these discussions: "Handling bulk products"; "Arranging stock for effective handling"; "Safety principles in handling operations"; "Reckoning with floor loads and elevator capacities"; "Preventive maintenance of equipment," and "When manual operations pay."

Other important topics include: "Time and motion techniques in handling"; "Materials handling factors in plant layout"; "Standardization of handling equipment"; "Integrating use of different types of equipment"; "Handling small parts"; "Personnel relations factors in handling"; "Vertical, horizontal, and inter-floor relations"; "Handling unusual shapes," and "Planned packing for efficient handling."

## P & R Refrigerator Opens In Central Florida

GAINESVILLE, Fla.—A new business establishment, the P & R Refrigerator Sales & Service, has opened at 660 W. Main St., N., under the joint management of Joe Roberts and Michael Pedonti of Orlando.

Mr. Roberts has been in the electrical refrigerator business since 1929 in Orlando; Mr. Pedonti has had around 10 years' experience in finishing and refrigerator repairs.

The new concern will service the entire central section of the state, Mr. Pedonti said.

## Larkin Catalog Features Cross Fin, Aluminum Coils

ATLANTA—A 72-page two-color catalog describing in detail its full line of products has been published by Larkin-Coils here.

Featuring the Larkin "cross-fin" coil design and aluminum fin construction employed in the coils, the catalog gives detailed specifications and prices on such items as "Hum-Temp" unit coolers (including heavy-duty floor models), heat exchangers, evaporative condensers, "Weather-Meter" air conditioning units, air conditioning coils, instantaneous direct expansion water coolers, plate coils, and the various finned and bare pipe gravity coils available for cases and coolers.

The section on special coils also contains detailed suggestions for determining the size of coils and ordering procedure.

## Super-Cold Distributor's Letter Contest Has 200 Entrants at Convention

SEATTLE—A letter writing contest, offering refrigeration equipment as prizes for the best letters, drew more than 200 entries at the Washington State Retail Grocers' and Meat Dealers' Association annual convention here recently.

Sponsored by E. L. Darnell, president of the Electric Refrigeration Co. here, distributor of Super-Cold commercial refrigeration equipment, the contest was held in conjunction with the firm's exhibit at the convention.

Contestants were divided into two classes: those who owned Super-Cold Salesboy refrigerated vegetable cases and those who didn't.

Owners were asked to write 200 words on "What My Super-Cold Salesboy Has Done for Me." Non-owners could write 200 words on "Why I Should Like to Own a Super-Cold Salesboy."

When the contest closed, Craig C. Dorman, of Dorman's Food Center, Tacoma, had won a 15½-cu. ft. home freezer for the best letter in the owner category and M. C. Keith, Ferndale grocer, had won a one-third down payment on a Salesboy case.

Mr. Dorman's letter follows: "What my Super-Cold Salesboy has done for me:

"It has caused less wastage, less shrinkage, less time spent in handling, less worry, lower wholesale prices through volume buying, lower retail prices because of all the above factors.

"It has also caused a faster turnover of fruits and vegetables, a larger variety of items displayed—some we never dared carry before. A larger percentage of customers buy fresh produce, and purchases are larger per customer.

"It has brought into our store customers who came in first to buy

## Radiant Heating Installations Reach 1,000 Monthly Total Reports Byers Co. Booklet

PITTSBURGH—Nearly 1,000 new installations of radiant heating are going in every month currently, and the total jobs in the country now total well above 10,000, declares the A. M. Byers Co., producer of wrought iron pipe, in a new booklet entitled "What We Have Learned from 1,000 Radiant Heating Installations."

Based on a thorough study of 1,000 such installations, the company estimates that 47% of radiant heating installations have gone into homes, 28% into commercial buildings, 16% into industrial structures, and 8% into institutions.

The great majority, 93%, have the heating coils in the floor only, while 7% employ only ceiling coils, the company says. Wall and ceiling coils are also employed in some instances as supplementary heating elements.

An estimated 90% of the jobs were imbedded in concrete floors, and 95% of the coils have welded joints, Byers declares. As for the coil hook-ups themselves, Byers estimates that 55% are of sinuous design, 45% grid type.

**GREATER CAPACITY DFN DEHYDRATORS**

- Stay on the line longer
- Need less servicing

See your jobber or write  
McIntire Connector Co.  
Newark 5, N. J.

## Canadian Refrigeration Journal

The Only Publication Servicing the Industry in Canada

National Business Publications Limited  
Gardenvale, Que. - Canada

## Electric Refrigeration Co. Exhibits at Grocer's Show



Vegetable display case was feature of exhibit.

vegetables only, and who came back to buy groceries as well.

"It has caused our competitors to come over and see how we were doing it, and then go back and clean up their own produce displays.

"It has brought us more profit, even by selling at a narrower margin than before.

"It has enhanced our reputation in our community by concrete evidence that we are wide awake, modern, progressive, successful.

"Our Super-Cold Salesboy has made us happy, our customers happy, our Pacific Fruit & Produce salesman happy.

"The only person not happy is our garbage collector."



Congratulating the winner.

## AMAZING NEW METHOD INSULATES BETTER AND SAVES YOU MONEY!



GET the facts about the completely new and revolutionary method of fireproof refrigeration construction developed by Gold Bond engineers. Zerocel installed with metal lath, channels, and Portland cement plaster replaces old-style construction methods using board forms of insulation... provides walls and ceilings that won't fall down. Finish is better looking. Inside condensation is eliminated. You get greater efficiency and permanence at big savings over outdated methods!

- Efficient, "K" factor of 0.24 BTU at 60° F.
- Fireproof
- Will not absorb moisture
- Odorless
- Will not settle
- Immune to fungus, rot and decay
- Vermin-repellent
- Easy to cut with a knife

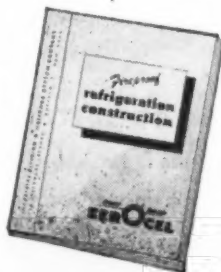
**GOLD BOND ZEROCEL INSULATION**



This versatile method, a development of National Gypsum Company's 20 years' experience in the construction industry, applies equally well to locker plant, cold storage warehouse, and processing plant problems. Find out all about this new method today! Fill in the coupon below and mail to Industrial Division, National Gypsum Company, Buffalo 2, N. Y.

## SEND FOR FREE BOOKLET TODAY

National Gypsum Company,  
Buffalo 2, N. Y.  
Gentlemen:  
Please send me a FREE copy of the new Gold Bond Zerocel Booklet, "Fireproof Refrigeration Construction." A-11  
Name.....  
Company.....  
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City..... State.....



*Right Down Your Alley!*

**Now Ready... 1/4 H. P. PACKAGE TYPE Lehigh BLU-COLD UNIT**  
for all self-contained uses

**IMMEDIATE DELIVERY**

For medium and low temperature applications. Size: 18 3/4" long, 14 3/4" wide, 11 3/4" high without mounting. Built for heavy-duty performance with Freon-12 or Methyl Chloride. Precision built to the highest Lehigh standards. Write for Special Data Sheets.

**Lehigh BLU-COLD**  
COMMERCIAL REFRIGERATION

**Lehigh Mfg. Co.**  
Plant: LANCASTER, PENNA.



## We Manufacture XL

## 'Freon' Compressors and Condensing Units (1 to 7 1/2 h.p.)

Ammonia Compressors 4x4 — 5x5 — 6x6 — 8x8

Ammonia Valves 1/4" to 5" Screwed and Flanged

Hilger 3 Way Valves For Dual Relief

Ammonia Flanges—Strainers—Discharge Check Valves

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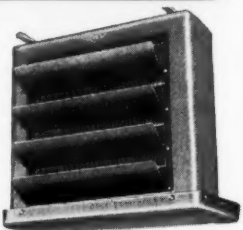
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## FASHIONED FOR FUNCTIONING

Even the handsome, engineered good looks of Larkin refrigeration products contribute to their fine performance. The originator of the Cross Fin Coil also offers you matchless quality in Air Conditioning Units—Evaporative Condensers—Instantaneous Water Coolers—Humi-Temp Forced Convection Units—Bare Tube and Zinc Fused Steel Plate Coils—and complete equipment for commercial and industrial refrigeration.



**LARKIN COILS** 519 MEMORIAL DRIVE • S.E. ATLANTA • GEORGIA

## Clerk Who Became a Prospect

## Sale of 10 Display Cases and 1 Walk-In Results From Employee's Desire for Own Modern Store

PEORIA, Ill. — When Farrar Brothers of Peoria, recently transformed a 40 x 100-ft. substantial brick garage building at 1500 North Jefferson St. into one of the best appointed super-service markets in the city, the equipment included an 8 x 10 walk-in meat cooler and 80 ft. of refrigerated self-service display cases, purchased from Kenyon Sales Service, Tyler Fixture Corp. dealer.

The refrigerated cases, all 8-footers, consist of three fresh meat cases, one cold meat case, two frozen food cases, two dairy cases, and two vegetable cases. In addition there are four dry vegetable cases.

## RESULT OF ANOTHER SALE

The installation of the 10 refrigerated cases and the walk-in cooler came about through another sale of refrigerated cases made by Kenyon Sales & Service.

About two years ago Ed Donnelly and Clarence Reed opened a market at 1709 Prospect Road, called the Zipper Market. Mr. Donnelly has been a flour salesman and was well acquainted with market operation in several states. He knew, from his calls upon leading market owners that self-service refrigerated cases were more sanitary, better appearing, and more profitable than closed cases. He planned on installing self-service cases in the Zipper and placed his order with Kenyon for these.

However, self-service cases were hard to get and he was compelled to open the market with just closed cases.

He did not receive the self-service cases until nine months later. In the meantime, the store had been very successful in building up a good trade. The bottleneck was in the closed meat cases, where the number of customers that could be waited on was considerably limited.

After the new cases came, two meat and a dairy case, the sales of meats and dairy products went up by leaps and bounds and were very instrumental in placing the small market well toward the super service class in volume.

George Farrar was working in the market. Early in his experience there, he began planning on operating a market of his own. After the self-service cases were installed and he saw first-hand just what they would accomplish, he made plans for a 100% self-service cases when he opened his new market.

## CUSTOMER BROACHES DEALER

As Mr. Kenyon was calling there occasionally, Mr. Farrar broached his plans to Mr. Kenyon and several conferences ensued. Mr. Kenyon cited profitable experiences of other market operators of self-service equipment.

Mr. Farrar finally found the vacant garage location, leased it, and began remodeling operations. As soon as he had it leased, Mr. Kenyon, who had offered the services of his concern in laying out the market free of charge, was told to go ahead. James E. Keefe, sales manager of the Kenyon firm, an expert in store operation, laid out the market in every detail. In this work he recommended shelves and gondolas that

will allow customers to see everything in the store with the least possible effort, maintaining that the more convenient the market is for the buying public, the more successful it is bound to be.

It is so designed that any one or more of the individual pieces of equipment can be shut down without affecting any other unit.

## NO SPECIAL SALES PROBLEM

"While we worked hard to enable Farrar Brothers to achieve their object," says Mr. Kenyon, "on account of the particular circumstances connected with the sale of refrigeration equipment, there was no special problem in selling. Like many more of our sales, the sale was made because the buyer had first-hand information of what our refrigerated equipment will do for them."

"To those who do not have first-hand information, we cite the figures achieved by customers and ask the prospect to check up on these. So far our problem has not been so much in the selling end as in getting the merchandise to fill orders."

"While our business is selling refrigeration equipment, our advice to all food merchants is to clean up and modernize their premises even though they do not purchase new equipment. This they must do to keep pace with the times. There is no question but that within the near future there will be national and state legislation covering the operation of all food outlets. Those who do not clean up and modernize now will have to do it later. We in the refrigeration business offer our services to store owners to help in this work, and, with this help available, it is up to the owners to make the effort to sanitize and modernize their stores."

## Continuous Advertising and Roadside Signs Build Business for Pittsburgh Fixture Dealer

PITTSBURGH—Continuous advertising and a sincere desire to help his customers get what they want have built up a good business for Bill Eggerman of the Eggerman Store Fixture Co. here.

Mr. Eggerman draws traffic to his store through daily classified advertising in local newspapers, offering a special on each day. "Our daily newspaper advertising was used so much in 1946 that it became a household word," he stated.

In addition, he has a dozen 5 ft. by 10 ft. road signs placed strategically about 10 miles outside the city, one on each major highway entering town. "They're good signs," Mr. Eggerman asserted. "You can't miss them. I've had a thousand people say they saw them."

To illustrate what he means by saying that he wants to keep his customers satisfied, he pointed out that his firm does not handle service calls. Yet he never turns a customer away.

In his office he keeps a book that contains two solid pages of names,

addresses, and telephone numbers of reliable refrigeration men whose abilities he has checked on personally.

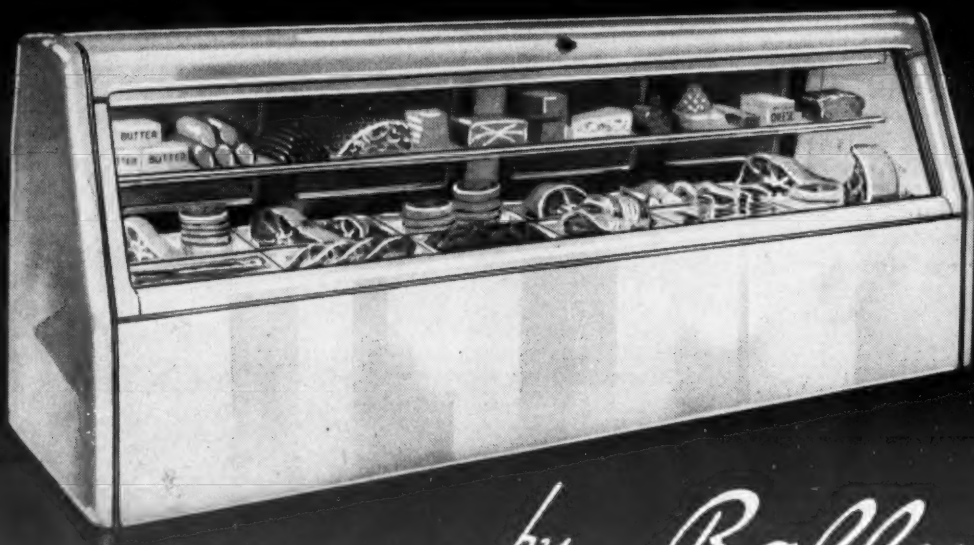
"Instead of turning the applicant away, I refer the call to any of these men, and get someone to handle that call," he says.

"When someone from out of town calls, I tell him whom to call and give him permission to use my name as reference. Not many people do that."

"People call me because I get them reliable action in a hurry from a reliable refrigeration man."

Indicative of the type of work that his own company performs, Mr. Eggerman revealed that he had recently equipped the new Rand drug store in downtown Pittsburgh with two 5-ton air conditioning units, a dishwasher, refrigerated lunch room equipment, cold salad units, bottle coolers, and soda fountains.

The firm, he said, has been in business for 50 years. It has its own trucks and refrigeration men and installs everything it sells.



by Bally

## A PRODUCT DEDICATED TO QUALITY

FROM THE FIRST PIECE OF MATERIAL AND THE FIRST HOUR OF LABOR, RIGHT ON THROUGH TO ITS COMPLETION, ALL THE MATERIAL AND WORKMANSHIP THAT GOES INTO THE MANUFACTURE OF A BALLY CASE IS THE FINEST KNOWN TO THE REFRIGERATION INDUSTRY.

This has been our "Creed" for the many years that Bally Cases have been built—and our insistence on high quality materials and skilled workmanship has never wavered.

TODAY—THROUGHOUT THE COUNTRY—THOUSANDS OF USERS OF BALLY CASES INSTALLED MANY YEARS AGO ARE BENEFITING FROM OUR RIGID POLICY OF USING ONLY THE "BEST."

"You Can Depend on a Bally"



**Bally Case & Cooler Co.**

MAIN OFFICE & FACTORY

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## REFRIGERATION PARTS

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Exchange



WATER COOLED CONDENSERS  
BUILT TO YOUR ORDER IN  
ANY SIZE AND CAPACITY

Modern complete shop specializing in rebuilding for the trade in the United States. Many items shipped the same day that your defective part is received.

## UNCONDITIONALLY GUARANTEED

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## REBUILDING OF:

- Compressor Bodies
- Condensers (Air and Water)
- Water Valves
- Controls
- Evaporators
- Float Valves
- Condensing Units

REFRIGERATION MAINTENANCE CORPORATION  
321 EAST GRAND AVENUE • CHICAGO 11, ILLINOIS



# The KEY to AIR CONDITIONING

One of a series from

by James J. LaSalvia

## Refrigeration Cycle

The essential parts of the refrigeration cycle which are used in air conditioning work consist of the following:

1. Compressor.
2. Condenser.
3. Evaporator or cooling coil.
4. Expansion valve.
5. Refrigerant.
6. Liquid line.
7. Suction line.
8. Hot gas line.

### REFRIGERATION CYCLE

Fig. 1 shows the diagram of the refrigeration cycle. The operation is as follows:

The refrigerant liquid is stored in the receiver "A." This liquid is at a high temperature and pressure. When the refrigerant is needed, it passes through liquid line "B," through a liquid line filter and a strainer to the expansion valve "C." The expansion valve delivers the liquid to the evaporator "D," according to the demand of the evaporator.

As the liquid enters the evaporator, it immediately cools to the temperature of the evaporator. As the temperature of the refrigerant liquid cools, it also lowers in pressure. As the temperature of the liquid is lowered, the liquid begins to boil and vaporize, and promptly begins to absorb the heat from the air surrounding the evaporator. The vapor that is formed consists of refrigerant vapor plus the heat from the air. This vapor is at a low temperature and pressure.

The pumping action of the compressor "F" pulls the vapor out of the evaporator, through the suction line "E" and scale trap to the compressor. With the aid of the expansion valve with its thermal bulb, a constant pressure within the evaporator is maintained.

From the suction line, the vapor is picked up by the piston of the compressor and compressed to a high

temperature and pressure; then it is forced into the condenser "A," through the hot gas line "G" where the vapor is condensed. As condensing takes place, the heat from the air picked up at the evaporator is given up to the condensing medium either water or air, which is passed over the condensing coils.

As the heat from the air is removed, the refrigerant vapor returns to its liquid state and flows into the receiver "A" from which it started, thereby completing the cycle.

In some cases the refrigerant is stored in the bottom of condenser which also acts as a receiver, while in others there is a separate receiver.

### COMPRESSOR

Before 1930 compressors were generally of slow speed usually below 400 r.p.m. Since 1930 the greatest development in compressors of various types has been made by leading manufacturers. Speeds of compressors have been greatly increased, as high as 1,800 r.p.m.

These speeds are not critical, as the speeds will vary according to type of compressor design. The higher the speed, however, the smaller the compressor, and less space is required.

It is best to check with the manufacturer as to his ability to guarantee the operation of such high speed equipment.

This does not mean that low speed compressors are the proper selection, but such units may be very essential where noise is a factor.

Four types of compressors are widely used in the air conditioning field: (1) reciprocating, (2) rotary, (3) centrifugal, and (4) sealed.

Fig. 2 shows a cross-section of a typical reciprocating compressor. The compressor has a single suction inlet and discharge outlet, but it may have one or more cylinders. They are of the two-cycle type of operation.

The refrigerant gas enters at the suction inlet and passes to compartment "A" where the oil in the gas drops out and passes through the oil return holes into the crankcase, while the gas enters inlet port "B."

The gas enters the cylinder through the inlet valve upon the down or suction stroke of the piston, the discharge valve being closed. Upon the upward or compression stroke of the piston, the gas is compressed to a higher pressure and temperature, the inlet valve being closed.

At the end of compression the discharge valve opens, and the gas is discharged through port "D" and discharge opening as a hot gas. From this point the hot gas is taken to the condenser.

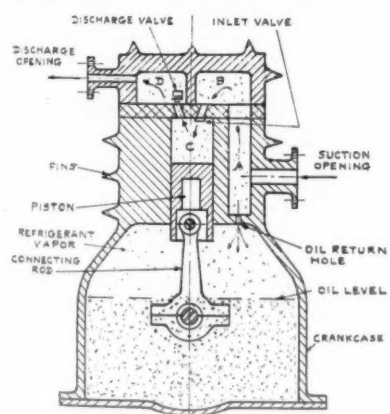


Fig. 2—Cross section of a reciprocating compressor.

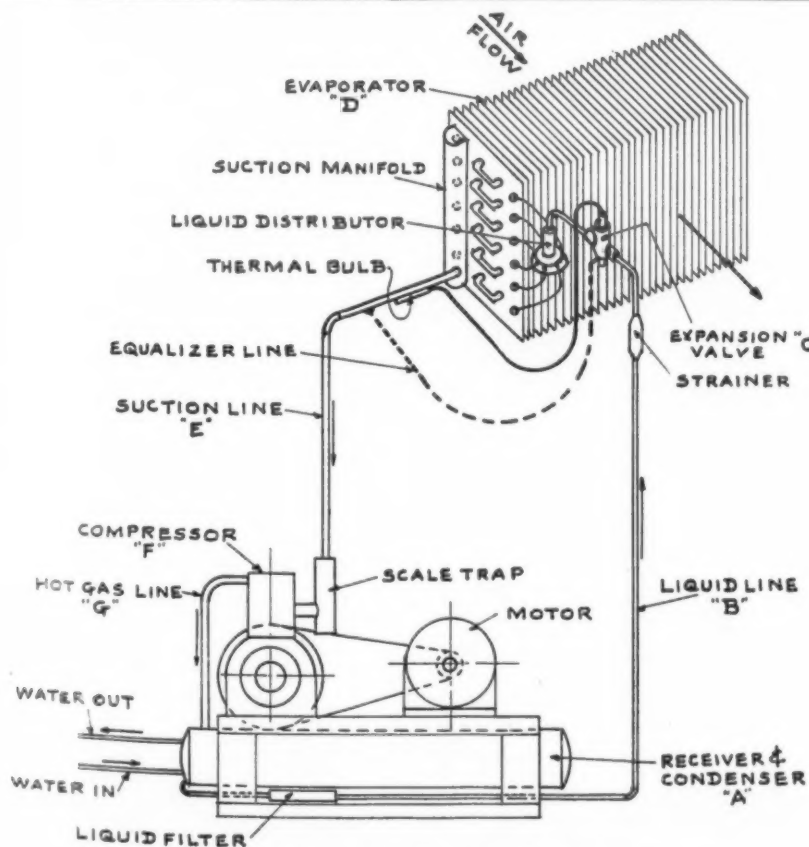


Fig. 1 shows in diagram form a typical refrigeration cycle.

## ★ NUMBER SIX ★

## Coming of Age

ALTHOUGH air conditioning was born more than forty years ago, it was not until the Depression Days of the 1930's that the industry began to take shape.

True, the industry did not progress nearly as fast as financiers and publicists predicted it would. However, the battle of public acceptance (an important one) was won during the 1930's. As a matter of fact, public acceptance outstripped engineering progress and production capacity during the decade which preceded Pearl Harbor.

From 1935 through 1940 a grand total of at least 825,000 horsepower of air conditioning equipment of all types was installed in this nation. This total was composed of 157,000 h.p. installed in theaters, 170,000 h.p. in offices, 56,000 h.p. in hotels, clubs, and restaurants, and 107,000 h.p. in factories.

(Please don't bicker with us about these statistics. They were taken from the U. S. Government reports, and we have no way of knowing how accurate they really are. They seem to be reasonable, however.)

Through 1941, 30% of the country's movie houses were air conditioned, and 5% of the nation's offices were made comfortable (along with a very small percentage of our public buildings). During this same period, less than 5% of the bigger retail stores in this country were air conditioned, and only 5% of our hotels and restaurants.

If these figures are to be trusted, this infinitesimal "penetration" of the domestic market leaves an enormous "potential." Obviously, saturation of the American market for air conditioning units is far away.

All estimates on the future of the slow-to-get-started air conditioning industry indicate that its sales curve should zoom. The industry is shooting at 95% of the offices now without comfort cooling, the great majority of the nation's hospitals now without air conditioning, the entire apartment house market, practically all of the non-air conditioned department and variety stores, the 97% of America's 80,000 beauty parlors that have not yet bought air conditioning equipment, more than 20,000 hotels which still don't offer their guests a "room with comfort cooling," and the more than 150,000 restaurants that are prospects.

All this is in addition to the yet-untapped residential air conditioning field—a market so great that it staggers the imagination of all sales researchers.

Air conditioning is slowly moving out of the luxury class. The world's new awareness of its need for comfort and health protection at home, as well as at work, should provide a demand that will bring air conditioning into the Big Industry class before many years have passed.

Mr. Dealer: Will YOU be there when the bell rings?

This is one of a series of 26 advertisements dedicated to the progress of the entire air conditioning industry by

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REFRIGERANT  
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## Refrigeration Problems

### And Their Solution

By P. B. Reed

For Service and Installation Engineers



Manager, Refrigeration  
and Air Conditioning  
Division, Perfex Corp.

### The Oil Cycle (4)

In previous paragraphs we have considered how oil and the oil miscible refrigerants mix and stay mixed when the refrigerant is in its liquid state, as it is in the receiver, the liquid line and part of the evaporator. There, oil-miscible refrigerant in liquid form and oil mix "in all proportions."

What happens when the oil is exposed to the refrigerant in vapor form? Does the oil absorb any of the refrigerant, and if so how much, and what governs the amount absorbed and what effect does it have on the oil and refrigerant?

#### KIND OF REFRIGERANT AFFECTS ABSORPTION

The manufacturers of miscible (with oil) refrigerants have studied this subject and tell us, if a miscible refrigerant vapor is exposed to oil, that the oil *does* absorb some of the refrigerant vapor, that the amount absorbed is determined by the *kind* of refrigerant it is, by its *pressure* on the oil and the *temperature* of the oil.

Also, they can tell us just how

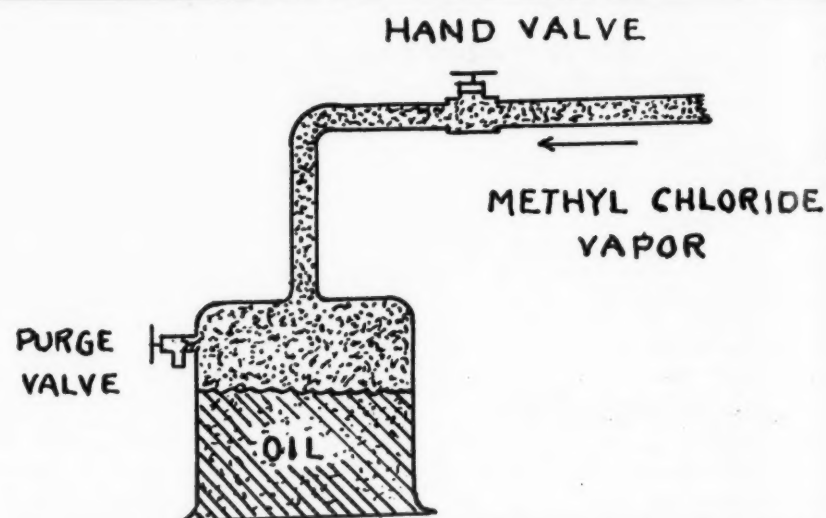


Fig. 1—When compressor oil is exposed to the vapor of methyl chloride or another of the oil-miscible refrigerants, the oil absorbs some of the vapor, the amount absorbed depending upon the pressure of the methyl chloride on the oil and the temperature of the oil.

much vapor will be absorbed under definite conditions of pressure and temperature and how the various amounts absorbed affect the oil and the refrigerant.

#### HOW VISCOSITY IS MEASURED

To illustrate the effect of temperature and pressure, let us suppose that we have a vessel containing a gallon of compressor oil of a viscosity of 320 seconds Saybolt at 100 degrees.

At this point it might be well to digress on just what this means. The viscosity is the "oiliness" of the oil, its tendency to stick to and thus form a film on surfaces.

One method of measuring the viscosity is the "Saybolt" test which consists of allowing a certain quantity of oil to drip through a standard size hole under standard conditions one of which is that the oil be at 100°F. The number of seconds that it takes for the oil to all drip through is the measure of its viscosity, so we say it is 320 second viscosity, 150 second, etc.

The 100° standard must be specified, for if the oil is warmer than 100° it will be "thinner" or less viscous, and will drip through faster—that is, in fewer seconds. An oil thinned out with kerosene would also drip through faster at 100° and would thus have a lower viscosity.

#### EFFECT OF PRESSURE ON ABSORPTION

Now to return to our gallon of oil in the vessel as shown in Fig. 1. To this closed vessel is attached a tube leading to the upper part (where it gets vapor only) of a cylinder of methyl chloride. Further suppose that the temperature of the oil is 100° so its viscosity will be 320 seconds, before it is exposed to the methyl chloride vapor.

The line valve enables us to regulate the pressure of the methyl chloride vapor on the oil. At first we partially open it and regulate it to give a pressure of 28½ p.s.i.g.

The manufacturers of methyl chloride tell us that with this type oil at 100° and a pressure of 28½ p.s.i. methyl chloride vapor on it, the oil will absorb methyl vapor until it gets to be a mixture that is 93% oil and 7% methyl by weight.

So instead of having one gallon of oil (which we will say in round numbers weighs 7½ pounds), we now have 7½ pounds plus about ½ pound of methyl chloride in the oil or a total mixture of 8 pounds oil and methyl.

Now we open the line valve slightly to bring the pressure on the

oil up to 37 p.s.i. If we allow a little time the oil will absorb more methyl because of the increased pressure.

It will absorb methyl until the oil-methyl mixture becomes 90½% oil and 9½% methyl. So now there are 7½ pounds of oil and ¾ pounds of methyl or a total of 8¼ pounds of the oil-methyl mixture.

If we close the line valve from the methyl cylinder, and then partly open the purge valve and reduce the pressure back to 28½ p.s.i.g., the oil can retain only the original ½ pound of methyl, for the pressure on it has dropped from 37 to 28½ pounds per square inch.

If the mixture can only hold ½ pound of methyl instead of ¾ pound, then, when the pressure is reduced from 37 to 28½, the quarter of a pound of methyl will come out of the oil as a vapor and the oil will be agitated and will appear to be "boiling."

#### INCREASING PRESSURE INCREASES ABSORPTION

Therefore, with the temperature of the oil remaining constant, an increase of pressure causes the mixture to absorb methyl and a drop in pressure causes it to give up methyl.

All this time the oil has been assumed to stay at 100°. With the methyl pressure on it of 28½ p.s.i. and with ½ pound of methyl absorbed into the 7½ pounds of oil, let us cool the oil from 100° to 80°.

The oil then becomes capable of holding more methyl with the percentage being 89% oil and 11% methyl, or 7½ pounds of oil and one pound of methyl, an increase of ½ of a pound of methyl with the 20° drop in temperature of the oil-methyl mixture.

If the oil is further cooled to 60° the mixture becomes 82% oil and 18% methyl, or 7½ pounds of oil and 1½ pounds of methyl, total 9 pounds.

Warming the oil back to 100° would drive off the difference between 9 and 8 pounds, or one pound of methyl chloride.

#### LOWERING TEMPERATURE INCREASES ABSORPTION

So, lowering the temperature of the oil allows it to absorb more refrigerant, and warming the oil-refrigerant mixtures causes refrigerant to be released.

Referring to Fig. 2 we find the curves from which the above values were taken and from which the further studies of the effect on the

(Continued on next page)

Your Equipment is  
**NOT COMPLETE**  
without .....



## THE MIDGET PURGER

The Midget is the companion or sister product to the Little Giant Purger. The Little Giant, previously introduced, is for purging the larger units, but the Midget is a low cost, water cooled purger designed for economical operation for the smaller or fractional units up to 10 hp.

The Midget Purger provides positive and complete purging of the refrigerating system with minimum loss of refrigerant.

Purging is an operation familiar to all refrigeration men. With the standard purging facilities it is usually impossible without an appreciable loss of refrigerant.

When non-condensable gases are present in a refrigerating system, it will operate at higher pressures than if these gases were not present. Unnecessarily high pressures result in the compressor being subject to:

Higher bearing loads. Higher discharging temperatures. Increased wear on moving parts. Greater power consumption.

#### HERE ARE THE ADVANTAGES OF PURGING WITH THE MIDGET PURGER

**THERE IS NO GUESSING**—By bleeding off the gases through the purge valve until the liquid rises to the top, you have a positive indication when purging is completed.

**MINIMUM REFRIGERANT LOSS**—The air in the system is completely separated from the refrigerant before the purge valve is opened.

**SIMPLE TO OPERATE**—All operating valves easily accessible. Not necessary to check pressures or temperatures. No need to shut down the system.

**POWER SAVINGS**—Power savings, due to a reduction in head pressure will pay for the "MIDGET PURGER" many times over.

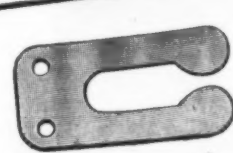
**MANUAL OPERATION**—Fully manually operated, there is no possibility of a slow leak developing which would cause a loss of refrigerant before the trouble is located.

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YOUR WHOLESALE

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... now makes suction  
and discharge valve reeds  
for leading makes of Her-  
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for the best in both con-  
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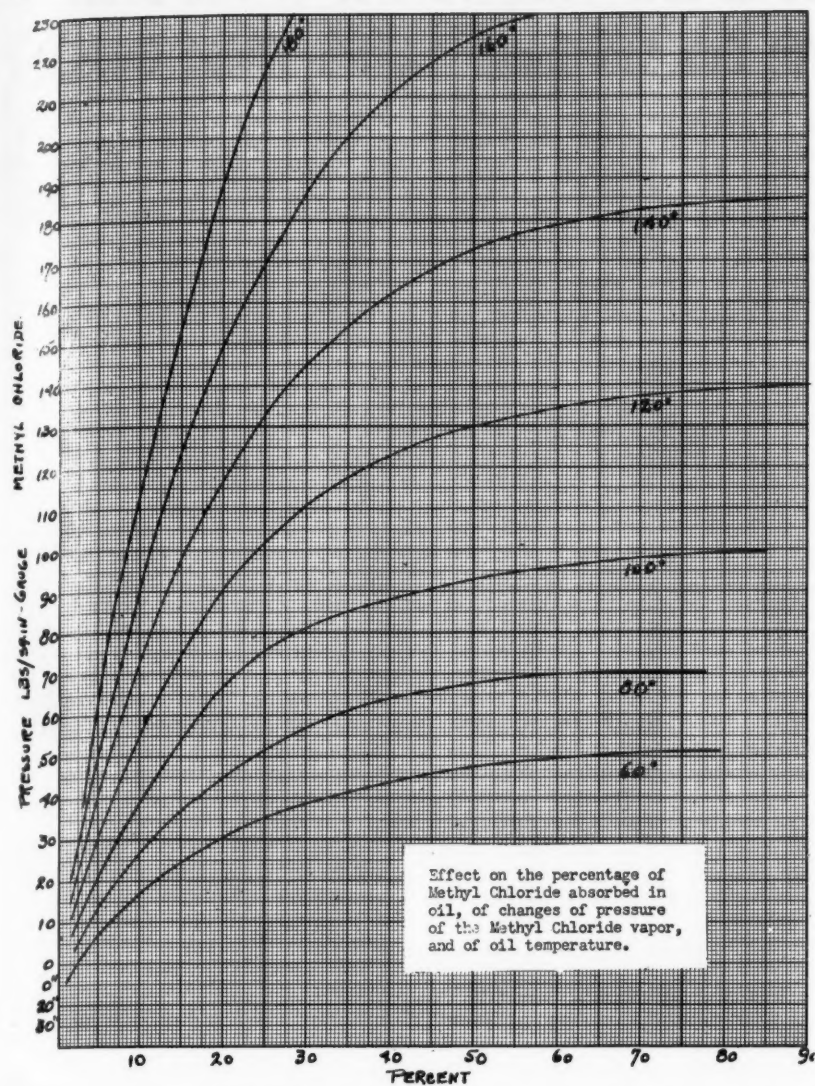


WRITE FOR ILLUSTRATED  
CATALOGUE AND PRICE LIST

**HASCO, INC.**  
GREENSBORO, N. C.



Fig. 2--How Temperature, Pressure Affect Oil & Methyl Oil & Refrigerant



## Oil & Refrigerant

(Continued from preceding page)  
percentage of methyl chloride in oil-methyl mixture can be made.

It will be noted that this chart is based on 320 viscosity oil, but there would not be much difference if some other oil were used, and the same principles will hold true.

Fig. 3 is drawn for a similar condition but with 325 viscosity oil (a negligible difference) but with the refrigerant being "Freon-12" instead of methyl chloride.

It will be seen that the same principles hold true, but that the values differ from methyl chloride. At the same oil temperature and refrigerant pressure, the oil will hold a very

much larger percentage of "Freon-12" than methyl chloride does, the difference being from half-again as much to twice as much.

### SUMMARY

Thus we can see that:

1. Mineral oil as used in refrigerating compressors does absorb refrigerant from vapors of oil-miscible refrigerants with which they are in contact.
2. The amount of refrigerant absorbed by the oil varies from one oil-miscible refrigerant to another.
3. The pressure of the refrigerant vapor on the oil affects the amount of refrigerant the oil will absorb. If the pressure is increased, more refrigerant is absorbed; if it is lowered, less refrigerant can be held by the oil so some refrigerant is released.

4. The temperature of the oil affects the amount of refrigerant the oil will absorb. A cold oil will absorb more than a warm oil, and if the oil with its absorbed refrigerant is warmed, refrigerant is released from the oil.

5. The amounts of refrigerants absorbed by the oil is measurable at the various pressures and temperatures, and if the oil temperature and refrigerant pressure are known, the percentage of refrigerant in the oil-refrigerant mixture can be determined with reasonable accuracy.

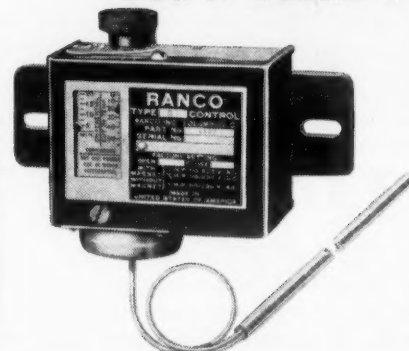
Later we will apply these five statements to actual conditions in a refrigeration system, but next let us consider what effect the refrigerant in the oil has on the oil, especially its viscosity.

(To Be Continued)

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| Specialists in Refrigeration | Less Stock to Carry             |
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Your customers don't like call-backs . . . and neither do you, for time spent on call-backs is lost time that cuts into your profits. You'll please your customers . . . and yourself, when you work with Ranco Refrigeration Controls. Designed to give long-life, trouble-free service, Ranco Controls provide the dependable service that will satisfy the most exacting customer. Check your Ranco wholesaler today, or write direct to Ranco Inc. for complete information.

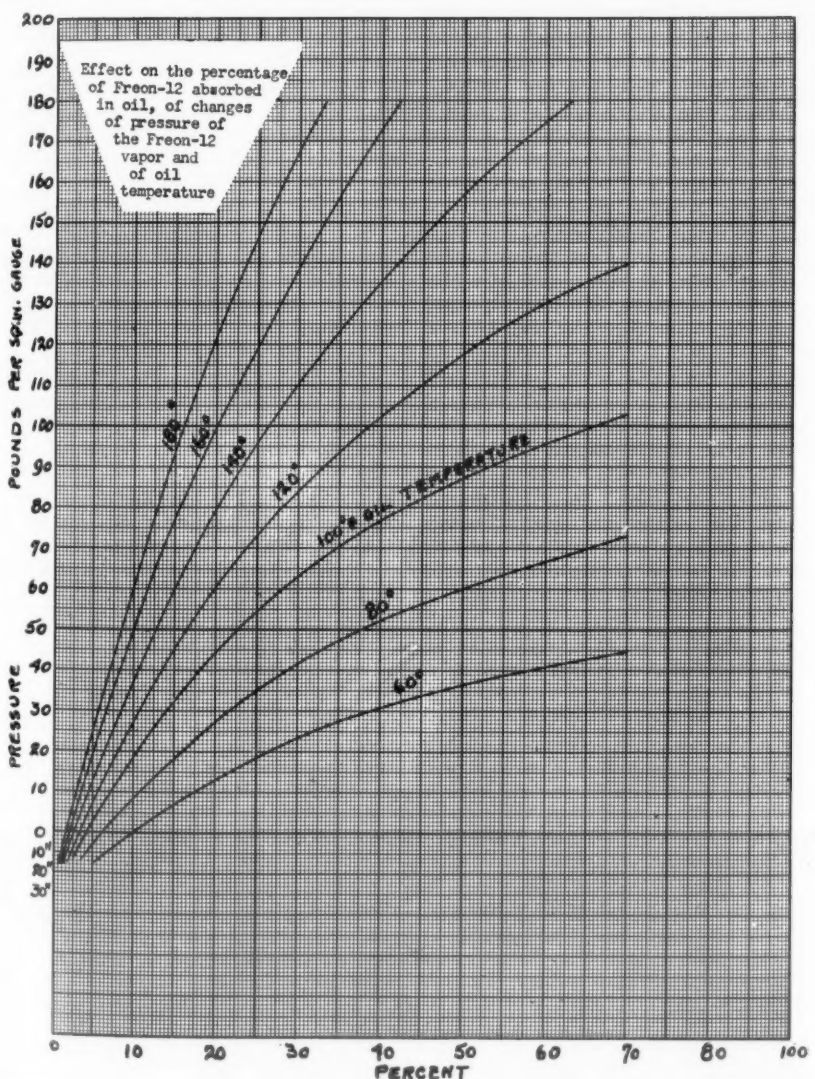
The Ranco O-1414 and O-1477 Controls are designed for milk cooler use where the temperature at the control, or on the capillary tube, may at times be lower than the controlling temperature.

**Ranco Inc.**  
COLUMBUS 1, OHIO



World's Largest Manufacturers of REFRIGERATION CONTROLS

Fig. 3--How Temperature, Pressure Affect Oil & 'Freon'



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F.O.B. our warehouse. \$21.18 EACH  
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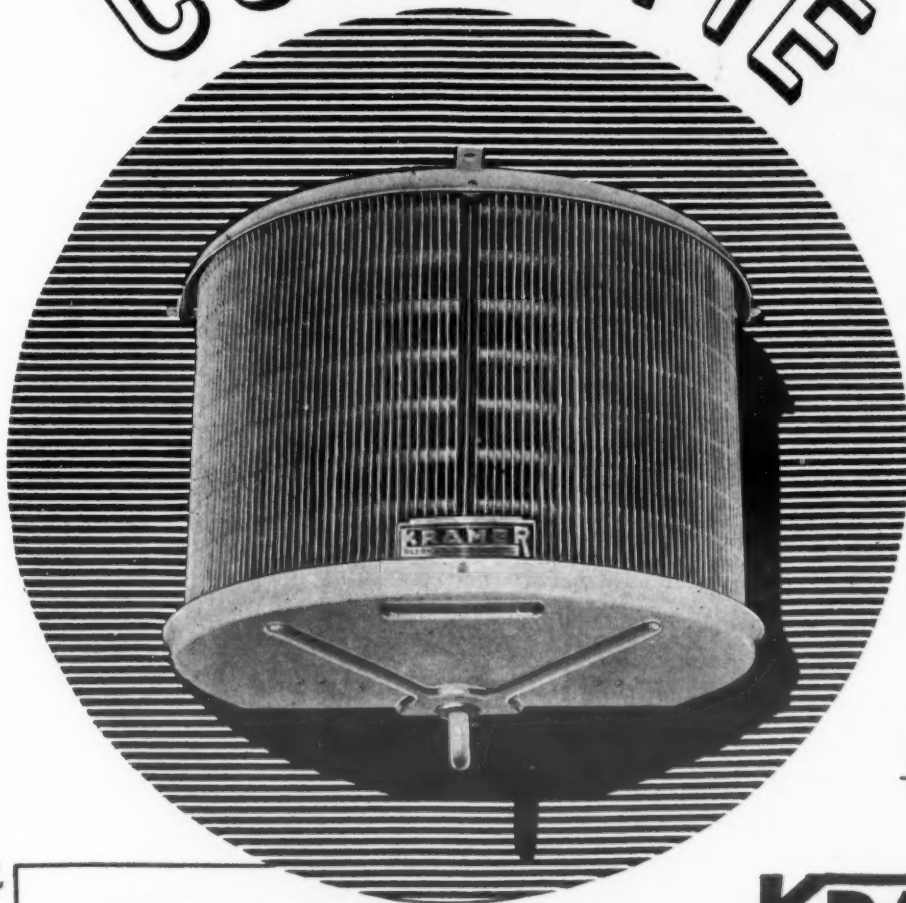
Our first sale of motors went like hot cakes. We are now able to offer a few hundred more General Electric 1/4 H.P. Capacitor Type motors with built-in overload protector, single-phase, 115V., 60 cycle, 1725 RPM.

We secured these through a most fortunate purchase and are offering them only to Refrigeration Service Dealers and Contractors because we realize the desperate need of them in the replacement field.

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Two Types

STANDARD MODEL

for  
NORMAL TEMPERATURES  
+34° to +50°

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for  
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WRITE FOR BULLETINS R106 and R123

**KRAMER TRENTON CO.** Trenton, N. J.



## Not Just the Easy, Seasonal Selling

# Stores' Two Separate Appliance Depts. Help Salesmen 'Specialize', Sell Item Year-Round

By George M. Hanning

KNOXVILLE, Tenn.—Setting up two separate appliance departments has done a lot to smooth out seasonal sales curves for the W. W. Woodruff Hardware Co. here, B. F. Baker, vice president stated recently.

"By putting refrigerators, ranges, water heaters, and home freezers in one department and washers, ironers, and radios in another, we keep both departments working the year-round," he declared.

"When we had only one appliance department, we found that the salesmen would concentrate on refrigerators in summer and radios in winter. They would take the easy sales and let the rest go.

"Under the two-department system, they can't do that. They must sell their own department's appliances the year-round."

Woodruff's, as the store is known today, is a department store without the clothing departments, according to Mr. Baker. It started out in 1865 as a hardware store but has since added paints, furniture, sporting goods, housewares, toys, and appliances.

Located right in the heart of downtown Knoxville, the store occupies four floors. Appliances, how-

ever, hold prominent positions on the main floor.

His appliance salesmen are making good money, Mr. Baker said.

"We would rather have a few good men and let them make good money than have a lot of mediocre men about. As a result, we have had very little turnover among our appliance salesmen. The youngest man has been selling appliances for 10 years."

The two departments are manned by six salesmen and two managers. The salesmen are paid salary and commission. The managers receive a salary and are given a share of the department's profits.

"This keeps the manager from concentrating on sales and neglecting the other functions of his position, such as advertising, service, and administrative tasks," Mr. Baker explained.

There are four servicemen with one in charge, according to Mr. Baker. They are paid on an hourly basis and handle only sealed refrigeration units. Open type units are left to an outside service firm. This cuts down on the number of replacement parts the store needs to carry, he asserted.

When the refrigeration service business is slack in the winter time, the men work on stokers. This keeps them working steady all through the year, he stated.

Working with the appliance departments is a woman kitchen designer "who talks the language of the customer," Mr. Baker declared. She draws up a sketch of what the customer's kitchen will look like when she gets the new appliances in it.

From this sketch she makes a regular drawing, nothing fancy but accurate and attractive. These drawings help influence the customer to purchase, he indicated.

The designer keeps her drawings of kitchens on file so that she can show them to other prospects. In this way the prospects can look at attractive kitchens that are not off in New York some place but right here in Knoxville, Mr. Baker said.

### Consumer Can Inspect

The address is listed with each picture so that the prospect might inspect these kitchens if they desire, he remarked.

Mr. Baker has found that the demand for electric ranges has increased immensely since before the war. At that time, he stated, sales held to the ratio of 10 refrigerators to one range. But today that ratio is about one refrigerator to one range.

The store operates from a waiting list, Mr. Baker declared, and the system followed has worked out very satisfactorily.

When a customer puts his name on the list, he puts down a \$20 deposit and he is given a number. When the appliance desired comes in, the customers are called according to the number they hold.

They can either accept the appliance or not. If they wish to wait longer for a particular model, they can do so. If they want to buy elsewhere, their money is refunded.

Advantages of this system, according to Mr. Baker, are that it has enabled the store to keep an accurate delivery schedule and it has prevented "high pressure" customers from trying to get appliances ahead of others.

The store has not made a practice of accepting trade-ins except on automatic washers, Mr. Baker declared.

"We try to give the customer the best possible break and we know that he can get more for his refrigerator or range by running a classified advertisement in the paper than we can afford to pay him. So why not let him make the profit."

### Some Washer Trade-Ins

On automatic washers, however, the store will take the customer's conventional type washer as a trade-in," he said. "This is only smart. The automatic washer market is pretty well caught up here while the conventional washer market is still far behind."

Mr. Baker finds that in refrigerators and ranges the deluxe and medium priced models are selling best. Waiting lists for these are very long. The top and bottom priced models, however, are pretty well caught up with demand.

"The people here have the money to buy now," he said, "and they want good merchandise that will last them a long, long time."

### Lewyt Asks Injunction Against Agents of Filter Queen Vacuum

CHICAGO—An injunction restraining Health-Mor, Inc. here, sales agents for Filter Queen vacuum cleaners from interfering with the customers and business of the Lewyt Corp. of Brooklyn, has been asked by the latter corporation.

Lewyt also filed a suit in the Illinois eastern division of the U. S. District Court seeking a declaratory judgment holding certain patents of Health-Mor invalid and non-infringed. Lewyt claimed that it began development and engineering work on its vacuum cleaner more than two years ago and introduced it on the market last January.

## Use In Low Temperatures or Fan-Draft Will Cut Sterilamp's Ultra-Violet Output

BLOOMFIELD, N. J.—Low temperature operation or drafts from fans or refrigerator blowers can cause striking reductions in the ultra-violet output of hot cathode Sterilamps, the lamp division of the Westinghouse Electric Corp. reported recently.

In an engineering letter to dealers, the lamp division declared that for maximum efficiency the hot cathode Sterilamp should be operated at room temperature. Its rated output is on that basis, the letter added.

"In general," it stated, "lamp performance will be satisfactory at temperatures down to 50° F. It must be remembered, however, that the ultra-violet output diminishes as the temperature is lowered at a rate approximating 1% of initial for every degree drop below room temperature.

"In addition, if lamps are operated in drafts, the drop in output can be at least twice as much as stated above.

"For example, in a draft of 400 ft. per minute, the output can be as low as 5% of the initial output at 35° F.

"Lamps must be shielded from drafts so as to keep air velocity around the lamp at 25 ft. per minute or less.

"If hot cathode Sterilamps, 'germicidal type,' are operated at temperatures ranging between 50° and 32° F., the following recommendations should be observed for satisfactory starting and operation of the lamps.

"1. Line voltage should be in the upper half of the rated range of the auxiliary (usually above 115 volts).

"2. The lamps should be entirely protected from drafts.

"3. A thermal starting switch or the equivalent should be used where starting difficulty is encountered.

"Inasmuch as lamps will continue to burn beyond the point at which they cease to produce ultraviolet sufficient for the expected protection, the end of useful life must be considered in terms of percentage of the 100 hour output rating, usually approximately one third."

Hot cathode germicidal lamps have a rated life of 4,000 hours with continuous burning and 2,500 hours with intermittent burning, the letter pointed out.

"At temperatures approaching 35° F. the life of the lamp will sometimes be reduced as much as 50% due to the rapid reduction in ultraviolet output, to a point below the accepted minimum," it continued.

"This shorter life results from bulb blackening, which is accentuated by the low temperatures.

"Actually, electrode life is not affected to any large extent by low temperature operation, and the lamp will continue to burn and emit visible radiations long after its usable life. It is necessary therefore to regularly meter the output of the lamps in order to determine their usefulness.

"The ultraviolet meter SM-600 can be used for this purpose."

## New System Enhances Vitamin Content, Flavor, Color, and Texture In Pre-Cooked Frozen Foods

LOS ANGELES—A new process for pre-cooked frozen foods which is said to heighten vitamin content and provide a product of superior flavor, color, and texture has been developed by Duryea Bensen, inventor, here.

The process, which makes it possible to reheat the product in about three minutes, is now available to commercial packers, Mr. Bensen said. He pointed out that standard canning and freezing equipment can be used and that the pre-cooking containers are low in price and will last indefinitely.

The process was developed particularly for non-acid products such as beans, corn, and peas, although Mr. Bensen declares that "every known product under every known recipe can be successfully packaged under the 'Perfect-Pak' process."

The process consists of blanching the products for three to five minutes to shrink them and fix the color. Next they are drained free of surplus water and salted.

They are then placed in specialty designed aluminum containers with

a simple method for quick closure and a quick vacuum release. These containers are sealed vapor-tight, with no addition of brine. The products are then pre-cooked under high pressures.

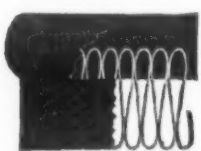
As no brine is added, Mr. Bensen points out, the only moisture or liquid in them after the retorting period is the natural juice of the product, resulting in the retention of a greater percentage of vitamins.

The products, reduced to normal temperature, are removed from the pre-cooking containers and placed in pre-formed transparent film bags, such as "Pliofilm," "Koroseal," or "Vynlite." A vacuum is drawn on the contents prior to and at the instant of freezing, thereby assuring that they will retain their shape.

The bags are next placed in wax cardboard containers with or without a window. For reheating, "Perfect-Pak" products are thawed in the unopened bags and are placed, also in the unopened bags, in boiling water for several minutes. The products never contact water.

## WHEN WEATHER PROTECTION IS VITAL your best choice is Bridgeport INNER-SEAL WEATHER STRIPPING

In arctic, tropic or temperate zone, when you need protection from weather's ravages, your best choice for weatherstripping is Bridgeport Inner-seal. Whether your problem involves heat or cold, dampness or dirt, in refrigeration units, ships, trucks, aircraft or automobiles, Inner-seal has unusual qualities that make protection positive and permanent, installation simple and economical. Its resilient, sponge rubber bead insures an airtight, crevice-filling seal. The bead is bonded for life, onto a flange of tough, spring steel wire, interwoven with heavy cotton thread. This rugged, flexible flange simplifies and speeds installation, especially where corners are sharp and curves compound. A neoprene coating that resists oil, sunlight and temperature variations covers the entire strip to assure long and effective service under the toughest industrial conditions.



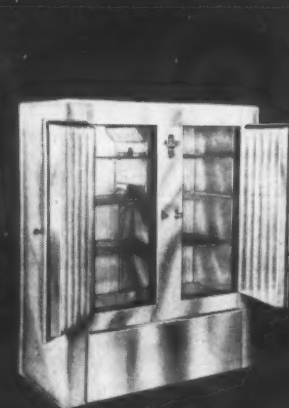
Inner-seal is manufactured in many standard sizes and colors for immediate delivery, or may be specially designed to meet unusual applications. Write for complete information and samples.

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### Distributors

Kason Hardware Corp., 127-137 Wallabout St., Brooklyn, N. Y.  
Jarrow Products, 420 North LaSalle St., Chicago, Ill.



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Our superior craftsmanship assures perfect performance. Discriminating buyers insist on QUALITY.

We also Manufacture

- FREEZERS
- DISPLAY CASES
- ICE CREAM CABINETS
- REACH-IN REFRIGERATORS
- BEVERAGE COOLERS
- FROSTED FOOD CASES

IMMEDIATE DELIVERY  
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**Crown REFRIGERATOR CORP.**  
FACTORY & NATIONAL SALES OFFICE  
METUCHEN, NEW JERSEY  
EXPORT DIVISION: 154 NASSAU ST., NEW YORK



## New In Precision Utilities Line



At left is the Precision Utilities "Frost Queen," a newcomer to the field of household refrigerators. An 8.2-cu. ft. two-temperature box, the Frost Queen includes a 1.5-cu. ft. frozen storage compartment across the top. Indications are that the list price will be approximately \$349.

## Gets NEMA Post



N. C. MACDONALD

## N. C. Macdonald Heads Household Unit Division

NEW YORK CITY—N. C. Macdonald, general sales manager, Crosley Division, Avco Mfg. Corp., has been elected Chairman of the Household Refrigeration Division, National Electrical Manufacturers Association.

Macdonald, who formerly was vice president and general manager of the Crosley Distributing Corp. of New York, is a veteran of more than 20 years experience in the radio and household appliance industry.

## Manufacturers Sales Jump \$1 Billion In September

WASHINGTON, D. C.—Manufacturers sales for September increased by \$1 billion, according to Commerce Department figures. Reasons given for the rise were improved steel supply, rise in soft goods industries, completion of summer vacations, and ever rising prices.

The sales total for September was \$14.7 billion, compared to an August figure of \$13.6 billion. The Commerce Department speculated that on the basis of sales for the first nine months the total manufacturers sales for 1947 should be approximately \$164 billion compared to actual sales of \$118 billion in 1946. Advancing prices are cited as an important factor in the increase.

Durable goods industries sales were estimated at \$6.3 billion for September, which is an increase of \$300 million over August. The only major durable goods group failing to report a gain for the month was transportation equipment, exclusive of automobiles.

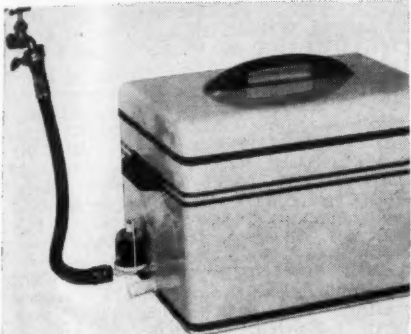
Manufacturers inventories rose to a total of nearly \$23.4 billion as the result of a \$350 million increase during September, Commerce Department figures indicated. Inventories in the durable goods field rose by approximately \$225 million to reach a total of a little over \$12 billion.

## Fedders Quigan Nets 9-Month Profit Twice 1946 Figure

BUFFALO—Fedders Quigan Corp. here reports a net profit of \$1,086,550 after taxes, which is equal to 91 cents per capital share, for the nine months ended Sept. 30.

This compares to a net profit of \$535,461 for the same three quarters of 1947 when the earnings per share amounted to 45 cents. Net sales for the two periods were \$13,981,078 and \$7,799,127, respectively.

Net profit for the quarter ended Sept. 30 was reported at \$356,004, or 30 cents per share.



The "Dish-Klean" dishwasher.

## Precision Utilities--

(Concluded from Page 1, Column 2) gone into the refrigerator, the company states, and it is equipped with a standard sealed unit and temperature control. Except for such items as the rubber door gasket, door hardware, plastic extrusions, and insulation, virtually all parts are fabricated at the company's 48,000 sq. ft. plant.

A kerosene-operated absorption refrigerator is also in the development stage, the company reveals.

The "Dish-Klean" dishwasher is priced at \$42.50, and operates on the hydraulic principle, being attached to the faucet by means of a specially molded rubber connection which is claimed to make attachment or removal only a matter of seconds.

In addition to a newly designed and screwmachined spray head and rotor, a supplementary water header has been incorporated in the unit to insure efficient coverage of the entire washing area, the company claims.

Any household detergent may be placed in the die-cast soap holder. Made of aluminum, the dishwasher is finished in white baked enamel and fitted with plastic handles. It measures 15 1/4 in. wide, 19 in. long, and 14 1/2 in. high.

Washing cycle consisting of hot soapy water bath, hot water rinse, draining, and air drying is completed in 3 1/2 minutes, it is claimed.

The company's new "Ice Queen" ice refrigerator has a capacity of 5.4 cu. ft., shelf area of 9.7 sq. ft., and a 100-lb. ice chamber.

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Receive the greatest trade paper in the Industry—AIR CONDITIONING & REFRIGERATION NEWS. Published every week. Brings you latest news and vital information on household refrigeration, commercial refrigeration, air conditioning, home freezers; manufacturing, distributing, retailing, servicing, and contracting. Only \$5 per year, 52 issues.

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## WANTED SALES AGENT

Manufacturer of refrigeration, air conditioning, heating and ventilating equipment is appointing individuals to handle these lines in territories that embrace one or more states. We are delivering our 1948 models now. Air conditioning equipment available in sizes 3/4 ton to 50 tons.

Director of Sales

Chicago HEAT-MASTER Company

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More VALUE  
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Realizing that 80% of all frozen foods are sold on the spur of the moment, ULTRA-COLD has designed their cabinets to offer the most attractive display of frozen foods possible... the best point-of-sale advertisement for increasing sales. There is no trick to selling ULTRA-COLD Freezers... their modern sales stimulating features make ULTRA-COLD a must with smart merchants.

30 INDIVIDUAL UNITS TO CHOOSE FROM FOR COMMERCIAL, FARM AND HOME USE

MODEL 112 DBL (illustrated) Display Back Freezer Approximately 22 cubic feet or 775 lbs. capacity

Length 64", Width 30", Height 53".

2 Clear 100% Vision Lucite Sliding Doors. Display back has full view mirror. Fluorescent lighting, and price card rack.

Finish: Exterior, all natural polished metal or natural top with white sides made of Stainless steel and 3 S-aluminum.

5" of fibre glass and vermiculite insulation. Finger-tip thermostatic control. Automatic Expansion valve. Heavy duty commercial type condensing unit. 110-220 volt 50 or 60 cycle single phase. Refrigerant Freon. Adjustable cabinet dividers.

Write today for further details on how to handle the profitable ULTRA-COLD line



ULTRA-COLD

ULTRA-COLD INCORPORATED • 2615 EXPOSITION PLACE • LOS ANGELES 16, CALIFORNIA



## Dept. of Agriculture Sees Frozen Turkey Big Marketing Opportunity; Plans Research

WASHINGTON, D. C.—Laboratory technicians of the Department of Agriculture are going to talk turkey—pre-cooked, frozen tom turkey, that is.

The department thinks the pre-cooked, frozen food field may hold the answer to the problem of marketing large-size tom turkeys. It will investigate this possibility as part of a research project recently approved by E. A. Meyer, administrator of the Research and Marketing Act.

Big tom turkeys are difficult to market because of their size, the department said. They must be cut up and prepared in such a manner that they appeal to the consumer because of size of package, palatability, and ease of preparation.

"The pre-cooked, frozen food field presents an opportunity that is relatively unexplored, as far as turkey meat is concerned," the department commented. "Only a few pre-cooked foods using turkey have been preserved by freezing; foods such as turkey a la king, turkey meat, and turkey hash.

"There is need for research on these and other pre-cooked poultry products, under controlled conditions of processing, freezing, and storage."

This study will be carried out by the department's Bureau of Agricultural and Industrial Chemistry at its western and eastern regional research laboratories. General purpose is to develop new methods of preparing and processing cooked poultry

meat and more accurate methods for the isolation and culturing of microorganisms that might be present in eggs or egg products.

Another related study approved by Mr. Meyer at the same time will seek reasons for, and ways to avoid, deterioration of quality in poultry meat and eggs, and especially new and improved uses for some of the by-products in the processing of meat and eggs. This research will be under the general direction of the Bureau of Animal Industry.

Both projects follow recommendations of the Poultry Advisory Committee.

### 'Electronic Scribe' Data Offered In Booklet

CHICAGO — A 16-page technical data book on the Capacilog "Electronic Scribe" was released recently by the Wheelco Instruments Co.

Diversified functions of the company's new strip chart recorder are explained in operational diagrams, schematic drawings, charts, and listings.

The operation of measuring systems such as deflection, potentiometer and resistance thermometer, and electronic circuit and recording system are treated individually.

Control switching actions are shown on a simplified diagrammatical chart. Instrument specifications and mounting dimensions are given in one section of the book.

## CLASSIFIED ADVERTISING

RATES for "Positions Wanted" \$2.50 per insertion. Limit 50 words.  
RATES for all other classifications \$5.00 per insertion. Limit 50 words.  
ADVERTISEMENTS set in usual classified style. Box addresses count as five words, other addresses by actual word count.

### POSITIONS WANTED

SALES ENGINEER: 28 years age. Single. 5 years selling and engineering. Member ASRE. Graduate several manufacturers engineering schools. Factory representative, wholesale or retail selling. BOX 2556 Air Conditioning & Refrigeration News.

### POSITIONS AVAILABLE

IMMEDIATE OPENING for experienced cabinet designer for design work on low and moderate temperature refrigeration cabinets. Minimum of 10 years experience required. Write stating qualifications, references and salary. BEN-HUR MFG. CO., 634 East Keefe Avenue, Milwaukee, Wisconsin.

LABORATORY TEST & project engineers. Openings for several refrigeration laboratory test & project engineers interested in a permanent position with a well established refrigerator manufacturer. Mechanical or electrical engineering graduates preferred. Experience not necessary. Give education, experience, references. Address replies to BOX 2528, Air Conditioning & Refrigeration News.

BRANCH MANAGER commercial refrigerator fixtures, (no air conditioning). Must know butcher tool line and supplies. Only man proven record need apply. Old firm centrally located. Must have sales ability, train salesmen, assume full responsibilities. Give qualifications and reference. One of best paying positions in industry. BOX 2533 Air Conditioning & Refrigeration News.

FACTORY REPRESENTATIVE to headquarter Detroit and travel entire country promoting commercial refrigeration sales

through dealer contacts and regional meetings. Nationally advertised line includes domestic home freezers. Excellent earning possibilities. Experience in specialty selling and/or refrigeration essential. Reply with brief particulars for further negotiation to BOX 2534 Air Conditioning & Refrigeration News.

EXPERIENCED DRAFTSMAN wanted to lay out and detail refrigerators, display cases, etc. old established Indiana company. Pleasant working and living conditions in small town near city. Write application giving experience, employment record, age, family. BOX 2549 Air Conditioning & Refrigeration News.

MANUFACTURER'S AGENT for established nationally known line of commercial refrigeration equipment including beverage coolers, beer dispensers, milk coolers, etc. to dealers in states of Texas, Oklahoma, Arkansas, Louisiana and Mississippi. Give complete background, references and lines now handling in first letter. BOX 2554 Air Conditioning & Refrigeration News.

SALESMEN WHO are now calling on refrigeration dealers to sell a fast moving and popular show case in all parts of the United States. Commissions or salaries can be arranged, must be a live wire. State present line now representing and references. For full particulars, write BOX 2555 Air Conditioning & Refrigeration News.

### EQUIPMENT WANTED

ATTENTION: MANUFACTURERS and jobbers—We buy for cash surplus inventories of refrigeration and air conditioning supplies and equipment. Only brand new merchandise in excellent condition considered. Please send complete details including quantity, price, manufacturer's part number, and date of manufacture. BOX 2559 Air Conditioning & Refrigeration News.

### EQUIPMENT FOR SALE

CHRYSLER—SEALED radial compressors. Sacrifice. Name your price. Immediate delivery. 3 & 5 HP. AC machines 50 & 60 cycle. 220 volt. ASCO AIR CONDITIONING CO., 689 Tenth Avenue, New York City, Cl. 6-9460 or FREEZAIRE CORP., 145 Washington Street, Brooklyn, N. Y. C., MA 4-7767.

MOTORS AND condensing units—available at once—1/4-1/2-3/4-1 HP Universal condensing units with or without motors. Special—six hole ice-cream cabinets with 1/4 hp. Copeland units less motors \$225. Also beverage coolers, beer equipment, stainless steel reach-in freezers. ALBROD CORP., 319 West 48th St., New York City 19, CI 6-9100.

10 NEW SURPLUS refrigeration steel tool kits consisting of 2 sets snap-on wrenches, oil pump and seal adjusting gauges and many other tools for servicing many type units. While they last \$75.00 FOB Chicago, Illinois. ALL BUSINESS COMMODITIES, INC., 4656 W. Rice St., Chicago 51, Illinois.

LIQUIDATING \$70,000 stock of 22-32-40-60-80 cu. ft. reach-ins, remote and self-contained models; all sizes of condensing units, electric water coolers, freezer plates, electric meat slicers, meat choppers. At less than factory prices. A real opportunity. Write AMERICAN COMMERCIAL EQUIPMENT CO., 4150 Holly Knoll, Los Angeles 27, California. Normandy 0450.

FOR IMMEDIATE disposal—large quantities of compressors, 1 1/2 stroke, 1 1/2 bore, suitable for 1/2 and 3/4 horse power condensing units. For complete information regarding price and delivery—C. C. CAWTHORNE & COMPANY, INC., 1100 Morris Avenue, Union, New Jersey.

SELLING OUT: used (as is) and rebuilt Frigidaire and Kelvinator condensing units with new s. ph. capacitor motors. Write for list. EDISON COOLING CORP., 310 E. 149th Street, Bronx 51, N. Y.

QUALITY BOBTAIL fountains; reach-ins, walk-in boxes—wood, metal; dough retarders; double duty cases—stainless steel, porcelain; dairy, florist, bakery cases; ice cream hardening cabinets; thermopane frozen food cases; milk, sandwich coolers; stainless steel back bars; with machines. Equipment made to special order. FRIGITEMP CORP., 931 Bergen St., Brooklyn 16. MA 2-9093.

ELECTRIC WATER coolers—immediate delivery. Copeland (pressure type) 10 gal. cap. only \$145; Kelvinator (pressure type) 10 gal. cap. only \$189; Ice Berg (bottle type) only \$150; Ice Berg (bottle type with storage compartment) only \$187. Write GENERAL REFRIGERATOR COMPANY, 856 North Broad Street, Philadelphia 30, Pa. Phone: STEvenson 4-1144.

REACH-IN REFRIGERATORS—new (approximately 40 cu. ft. capacity). Factory rejected, minor outer-shell imperfections, mechanically perfect, standard factory guarantee. Ready to plug in, self-contained 1/2 HP condensing unit. First come—first served, only \$350 (FOB Philadelphia). Write to GENERAL REFRIGERATOR COMPANY, 856 North Broad Street, Philadelphia 30, Pa. Phone: STEvenson 4-1144.

BEVERAGE COOLER and food refrigerator combination, complete with compressor and motor, fiberglass insulated, 7 1/2 cu. ft. food storage, 6 1/2 cu. ft. wet or dry bottle cooling, dimensions 65" x 33 1/2" x 29 1/2". Price \$175.00 FOB. Circular on request. LEHIGH VALLEY SERVICE COMPANY, 29 So. 6th Street, Allentown, Pa.

FOR IMMEDIATE disposal our inventory new Universal compressors complete with motors, 3, 5, 10 HP water cooled—original crates. Water defrost coils Drayer-Hanson 1900 WD - 2600 WD also Recold 134LT. Sacrifice—Write LOCKER ENGINEERING COMPANY, 521 No. La Cienega Blvd., Los Angeles 36, California.

MOTORS FOR sale, from stock. Jack & Heintz, others at list; discount on quantity purchases. Special prices on scheduled deliveries. Fractionals and Integrals, AC

and DC. Send in your specific inquiries. MODERN SUPPLY COMPANY, 208 Fulton Street, New York 7, N. Y. CO. 7-0100.

JACK & HEINTZ fractional horsepower motors now available. We carry complete line of various sizes: 1/8, 1/4, 3/8, 1/2-110/220 AC 60 cycles; 115/230 AC 50 cycles. In stock for immediate delivery. Maximum discounts. Export Dept., S. J. O'BRIEN SALES CORPORATION, 560 West 34th Street, New York 1, N. Y. Telephone WI 7-2100.

SACRIFICING BRAND new Copeland and other top brands. Condensing units in original crates. 1/2, 3/4, 1/2 HP air-cooled. 1 1/2 and 3 HP water-cooled. All priced for immediate clearance. Write or wire now. ROCHELLE REFRIGERATION COMPANY, 31 East 4th Street, New York 3, N. Y.

SEALED CROSLLEY TERMINALS. Installed from the outside in a few minutes without opening the compressor. Corrects leaky terminals on all Crosley "F-12" units. Set of three \$5.25 (Part No. 1020). Installation tool 20¢. Immediate delivery. Money-back guarantee. SEALED UNIT PARTS CO., 3097 Third Ave., New York, 56, N. Y.

FOR SALE at reduced prices—60 Panelectric Cuberators—automatic ice cube makers ideal for small bars and clubs where retail liquor sales not restricted. All new and excellent condition. Write for particulars. E. A. WATTENBURG, 201 Westlake North, Seattle 9, Washington.

JOBBERS ONLY, new motors to fit all types of unit coolers 130 Universal make 1/25 HP, 1500 RPM, 5/16 shaft clockwise, 400 Redmond, 1/30 HP, fan cooled, end mount, ditto, 200 Redmond, 1/25 HP, fan cooled W/base, ditto. YOUNG SUPPLY COMPANY, 860 W. Baltimore, Detroit 2, Michigan.

FOR IMMEDIATE disposal—surplus material as follows: 633# soft copper strip, .078 x 1 1/4", 2200# hard copper strip, .010 x 1 1/4", 2000# hard copper tubing, .375 OD x .315 ID, 620# soft copper tubing, .375 OD x .315 ID. For complete information regarding prices and delivery—P.O. BOX 497, Elizabeth, New Jersey.

REDUCING INVENTORY of Frigidist Vegetable Cases. All new in original crating. Less than distributor cost. Write for price list. BOX 2540 Air Conditioning & Refrigeration News.

### FRANCHISES WANTED

DEALER IN refrigeration appliances, currently operating well equipped workshop and maintaining trained staff desires exclusive Netherlands agency for established American refrigeration manufacturer. Apply to: Fa. P.H.v.d.Ven, Kleverlaan 7, Haarlem.

### BUSINESS OPPORTUNITIES

FOR SALE: Established air conditioning refrigeration and engineering business. Have National franchise for this and another state for refrigeration. Stock about \$60,000. More than \$300,000 yearly profit over \$50,000—1946. Building available reasonable rental or purchase. Retiring. Would sell invoice price. Would take approximately \$40,000. LESLIE CONNER, Hightower Building, Oklahoma City, Oklahoma.

WELL ESTABLISHED commercial refrigeration store, fixture business, sales and service. Located fast growing Los Angeles. Average about \$300,000 yearly. Building 6,400 sq. ft., 80 ft. frontage, parking rear. Service shop, tools and trucks. Sell complete or business only. \$25,000 down and financed balance. Make offer. BOX 2538 Air Conditioning & Refrigeration News.

WELL ESTABLISHED refrigeration sales and service business. City 100,000. Southwest health center. Merchandise, stock parts and supplies at inventory cost. No "Blue Sky." Trucks. Personnel. Approx \$10,000 stock. All merchandise. Good income. State coverage, long seasons. Other interests reason for selling. BOX 2558 Air Conditioning & Refrigeration News.

### SCHOOLS

NEW FULL or part time classes in advanced refrigeration, air conditioning, and heating to start December 2nd. Enroll now. G. I. approved. Men with high school education or experience or basic training in refrigeration, air conditioning, or heating preferred. DETROIT AIR CONDITIONING INSTITUTE, 4125 Grand River Avenue, Detroit 8, Michigan.

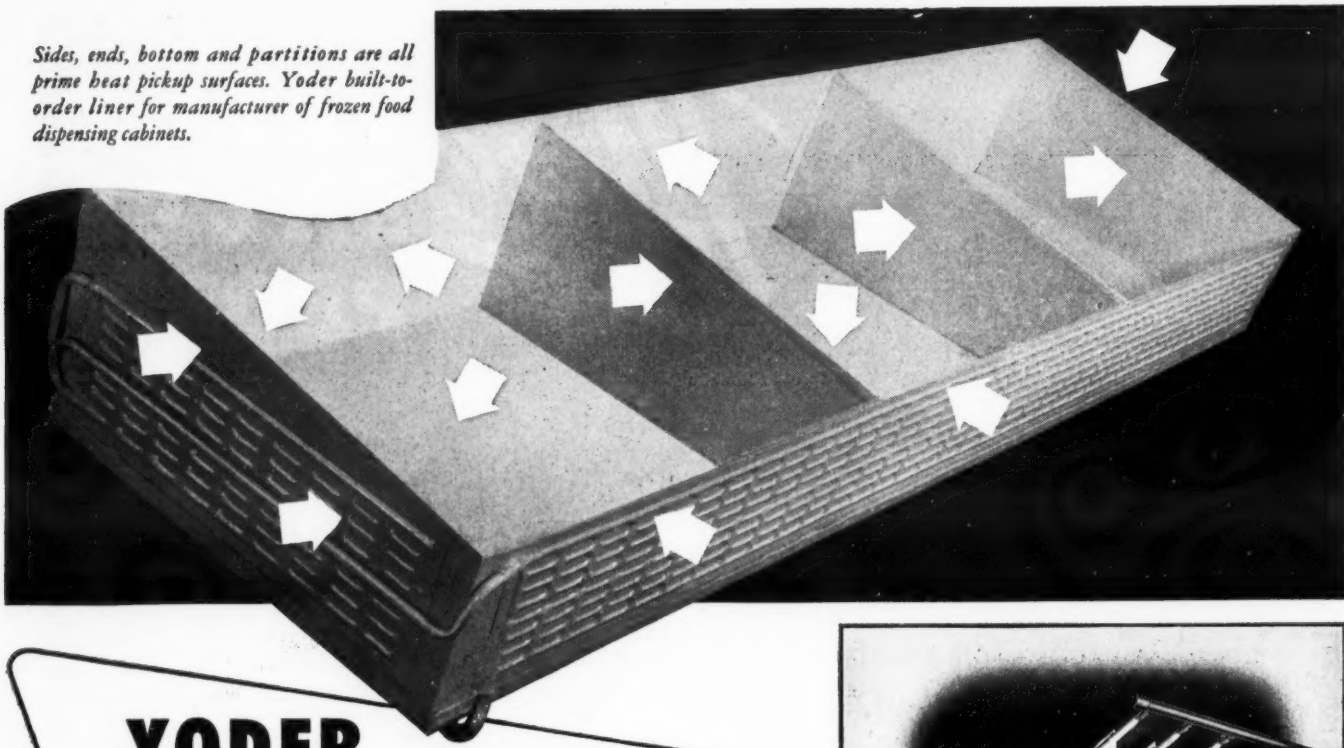
## WANTED SALES MANAGER

Leading well-established domestic heating manufacturer planning to enter air-conditioning manufacture is in need of a top-notch Sales Manager to organize and direct aggressive sales organization. Write, giving full experience. Box No. 2553, Air Conditioning & Refrigeration News

Large Eastern manufacturer specializing in commercial refrigeration has open time to build under private label for rated firm in the dairy, candy, ice cream, or food lines. Cabinet will be built to rigid specifications.

Box 2546, Air Conditioning & Refrigeration News

Sides, ends, bottom and partitions are all prime heat pickup surfaces. Yoder built-to-order liner for manufacturer of frozen food dispensing cabinets.



## YODER FREEZER LINERS

the last word in space-saving, efficient heat pickup

Yoder Liners are made to fit any shape and size of cabinet, box, or case—domestic or commercial—serving as a liner, shelf, tray or partition for storage, display and dispensing purposes. It occupies the minimum of space—leaving maximum space available for storage. It is strong, rigid, trouble-free, easily installed. Above all, the revolutionary Yoder channel design—a close network of tiny flat channels insures the highest known heat pickup efficiency, as proved by its K factor of 2.5 for temperatures below 20°F. This means more and quicker refrigeration per square foot of surface, or that a smaller plate surface will meet your requirements at lower cost.

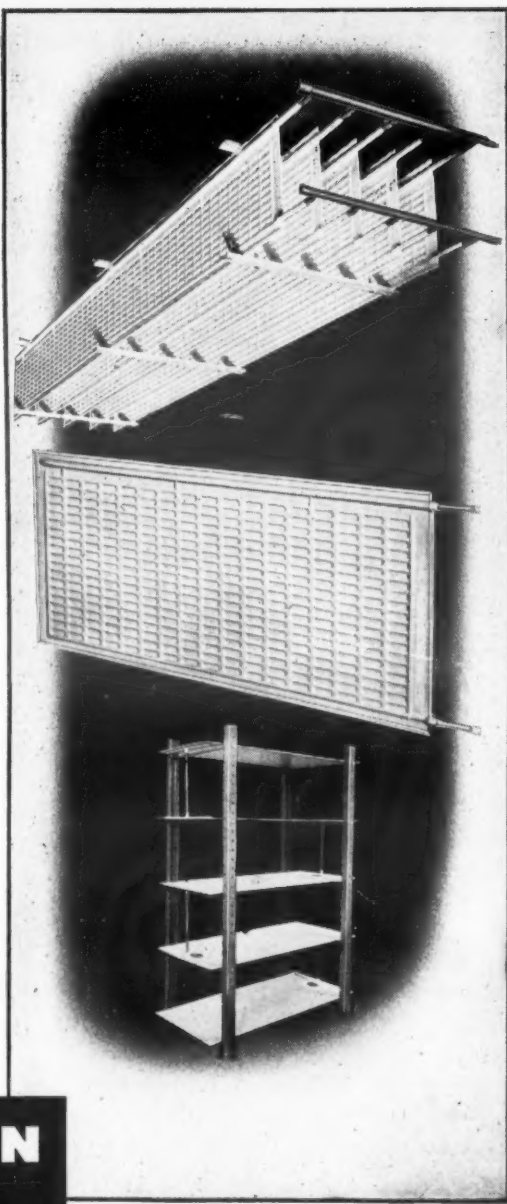
For interested manufacturers with quantity requirements we design and build liners to meet individual requirements at a cost which usually represents a substantial saving in unit cost.

**THE YODER CO., Refrigeration Division**  
5580 Walworth Avenue • Cleveland 2, Ohio



**REFRIGERATION PLATES**

LINERS • SHELVES • PLATE BANKS





## Safeway Stores Sues York Cold Storage Co. On 'Dehydration'

LINCOLN, Neb.—An \$18,524.47 damage suit against the York Cold Storage Co., York, Neb., has been filed in Federal court here by attorneys for Safeway Stores, Inc., of Oakland, Calif., charging the cold storage company with damaging 587,975 pounds of poultry stored by Safeway stores of the Nebraska area during 1946.

The York warehouse allegedly damaged the poultry by dehydration by the freezing machinery, improper stacking and handling, and other freezing damage caused by the locker equipment.

## Bryant's, Inc. To Distribute Frigid-Freeze In Northwest

SEATTLE—Bryant's Appliances, Inc., Seattle, has been appointed distributor by Refrigeration Corp. of America for its Frigid-Freeze line of commercial refrigeration equipment in Washington and northern Idaho.

John Condon is formulating the sales and dealer program for Bryant. Prior to the war he was affiliated with the Northwind Packing Co., Sumner, Wash., in the frozen food business.

## Armstrong Is Bendix Merchandising Head

SOUTH BEND, Ind.—Joseph L. Armstrong has been appointed national merchandising manager for Bendix Home Appliances, Inc., it was announced here.

Before joining Bendix, Armstrong was general sales manager of Schaefer, Inc., manufacturer of low temperature equipment. Other positions were general sales and advertising manager for Maico Co., Inc., manufacturer of hearing aids and audiometers, and assistant sales promoter for Standard Oil Co. of Indiana.

## Record Turnout of Hunters Ups Locker Space Demand Among Wyoming Operators

CASPER, Wyo.—Unprecedented demand for refrigerated locker space, stemming from the record turnout of hunters for the big game season in Wyoming, has caused considerable expansion of locker service in the Casper area.

Over 100 additional lockers are being installed at Frozen Food Lockers, Inc., Fifth and Beech Sts., Casper, while Knights Cash & Carry grocery at nearby Mills is opening its Sagebrush Locker System No. 2 with complete processing and quick freeze service.

## H. R. Burt Named Sales Representative In West For Jack & Heintz, Inc.

CLEVELAND—Harold R. (Doc) Burt, sales and service engineer of Oakland, Calif., has been engaged by Jack & Heintz Precision Industries, Inc., Cleveland, as western district sales and service representative of the Electric Motor and Refrigeration Divisions, Frank R. Kohnstamm, general sales manager, announced Nov. 1.



Harold R. Burt will be charged with primary responsibility for Jack & Heintz motor and refrigeration condensing unit accounts in 11 Western states.

Joining the William Wurzbach Co. in January of this year, after more than two years as service engineer with the G. & W. Refrigeration Co. of Oakland, Mr. Burt served the company's prospects and customers in California, Oregon, and Nevada.

Prior to active entrance into the refrigeration field, he was a California school principal for eight years, and devoted three years to the construction industry.

## Kenmore Metals Develops New Non-Flaking Wire

NEW YORK CITY—An entirely new type of electroplated and drawn wire that can be bent, swaged, hammered, woven, or twisted without flaking is now being produced in commercial quantities at the new plant of Kenmore Metals Corp. in Warren, Pa.

Herbert Kenmore, president of the company with offices at 80 Broad St., New York City, stated that the new wire product has a wide range of manufacturing applications in radio tubes, incandescent and fluorescent lamps, electrical devices and appliances, jewelry, and wire goods.

"Fernicklon," trade name of the new product, is the result of an entirely new process, Mr. Kenmore said. Metal rods of 1/4 in. diameter are first electroplated continuously with perfect accuracy, then cold-drawn down to diameters as fine as 0.0038 in. One inch of 1/4 in. plated rod may produce as much as 100,000 ft. of plated wire, permitting it to be ordered in continuous sections of almost any length.

Initial production at the new Warren plant includes steel wire with nickel, copper wire with nickel or silver for radio tubes and lamps, household utensils, tinsel wire and thousands of other wire products. Die polish or satin finishes are available. Because of its surface perfection and the absolute bond between its constituent metals, Fernicklon can be subjected to the severest climatic conditions when an anti-corrosive coating metal is used, the company said.

## Utility Sales Serves As Agent for Mfrs. West of Rockies

LOS ANGELES—The Utility Sales Co., organized by Vincent J. McIntyre, formerly of Bandoli-McIntyre Co., will act as manufacturers' agents in the territory west of the Rocky Mountains.

The new firm will specialize in parts and accessories for electric refrigeration, both commercial and domestic.

McIntyre has withdrawn from active participation in the Bandoli-McIntyre Co., Southern California home appliance distributor, to give his full attention to the Utility Sales firm.

## Wilson Refrigeration Sets Big Advertising Program

SMYRNA, Del.—Plans are under way for the most extensive program of advertising and sales promotion in the history of Wilson Refrigeration, Inc., a Division of Wilson Cabinet Co., Inc., Smyrna, Del., states Charles R. Mougey, sales promotion and advertising manager.

The program will be aimed at development of new sales and advertising support for the company's line of farm and home freezers, refrigerators, and milk coolers. At the same time, Mr. Mougey announced the appointment of The Aitkin-Kynett Co. of Philadelphia to direct the company's new advertising program.

## American Instrument Co. Humidity Sensing Element Responds to 0.1° Changes

SILVER SPRING, Md.—A new humidity sensing element that responds in less than one second to either decreasing or increasing relative humidities and detects changes as small as 0.1% relative humidity has been introduced by the American Instrument Co. here.

The operation of the element is based on the ability of a hygroscopic film, assembled in a sturdy housing, to change its electrical resistance instantly with microchanges in moisture content, according to the company.

The manufacturer guarantees the element to retain an accuracy with the limits of plus or minus 1 1/2% relative humidity for at least one year and claims that it will provide highly accurate measurements for a period of years.

The element is said to cover a range of 7% to 100% humidity. It measures 3 1/2 in. high and 3 1/4 in. in diameter.

Other features which are claimed for the new element by the manufacturer are:

When measuring, it neither adds or removes moisture in significant amounts, even in sealed spaces. Its accuracy is unaffected by changes in barometric pressure.

It may be used to indicate, control, and record, and may be used for remote installations. It is said to incorporate a temperature measuring element.

## Northwest Refrigeration Moves To New Location

VANCOUVER, B. C., Canada—Northwest Equipment Co., Ltd. and Northwest Refrigeration Co., Ltd., are operating from new premises at 2030 West Broadway, Vancouver, B. C. J. M. Malkin and A. E. Pinton took over control of these two companies some months ago.

The Northwest Refrigeration Company specializes in commercial installations, service and installation work being under the supervision of F. R. Wright. Locker plants, apartment house installations, walk-in and reach-in boxes are all manufactured and installed by this company. It has also handled a number of marine installations, both large and small.

This company is also handling an agency for Mills counter freezers, as well as turnstile equipment, frosted food display cases, soda fountains, etc.

The allied company, Northwest Equipment Co., Ltd., specializes in supplies for the contacting, mill and furniture trades.

## Hussey Picks Detroit Agent

PITTSBURGH—Appointment of Crawford-Mazer, Inc., Detroit, as sales agents for all Hussey copper and brass products in the Detroit territory has been announced by C. G. Hussey & Co., here. Sales offices of Crawford-Mazer, Inc. are located in the Fox building, Detroit.

# Superior

## Life-Time DIAPHRAGM PACKLESS VALVES

### OUTSTANDING FEATURES

1. Husky one-piece lower stem.
2. Controlled stem travel assures "Life-Time" diaphragm performance.
3. Scientific lubrication, large bearing surfaces and polished stem heads eliminate wear and assure smooth, easy operation.
4. Large drillings give full flow.
5. Operates under normal pressure with flow in opposite direction.

### Superior ANGLE VALVES

| CATALOG NUMBER | CONNECTIONS    | LIST PRICE EACH | NET WT. EACH LBS. | CODE WORD |
|----------------|----------------|-----------------|-------------------|-----------|
| 104-4B         | SAE Flare 1/4" | \$5.00          | .75               | Lefom     |
| 104-4C         | Male Pipe 1/4" | 5.00            | .75               | Lefro     |
| 104-6B         | SAE Flare 3/8" | 5.00            | .75               | Lefus     |
| 104-6C         | Male Pipe 3/8" | 5.00            | .75               | Legoz     |
| 105-8B         | SAE Flare 1/2" | 5.00            | 1.00              | Legon     |
| 105-8C         | Male Pipe 1/2" | 5.00            | 1.00              | Lejac     |
| 106-10D        | SAE Flare 3/4" | 6.00            | 1.25              | Lekad     |

### Superior LINE SHUT-OFF VALVES\*

| CATALOG NUMBER | CONNECTIONS     | LIST PRICE EACH | NET WT. EACH LBS. | CODE WORD |
|----------------|-----------------|-----------------|-------------------|-----------|
| 204-4          | SAE Flare 1/4"  | \$5.30          | .9                | Lelim     |
| 204-6          | SAE Flare 3/8"  | 5.30            | .9                | Lelot     |
| 205-8          | SAE Flare 1/2"  | 5.30            | 1.25              | Lelot     |
| 206-10         | SAE Flare 3/4"  | 6.60            | 1.5               | Lemjo     |
| 204-4S         | O.D. Sweat 1/4" | 5.30            | .9                | Lemuz     |
| 204-6S         | O.D. Sweat 3/8" | 5.30            | .9                | Lenag     |
| 205-8S         | O.D. Sweat 1/2" | 5.30            | 1.25              | Lenek     |
| 206-10S        | O.D. Sweat 3/4" | 6.60            | 1.5               | Lenov     |

### Superior BRANCH SHUT-OFF VALVES\*

| CATALOG NUMBER | CONNECTIONS     | LIST PRICE EACH | NET WT. EACH LBS. | CODE WORD |
|----------------|-----------------|-----------------|-------------------|-----------|
| 304-4          | SAE Flare 1/4"  | \$6.25          | 1.00              | Lepem     |
| 304-6          | SAE Flare 3/8"  | 6.25            | 1.00              | Lepuc     |
| 305-8          | SAE Flare 1/2"  | 6.25            | 1.50              | Lepwe     |
| 306-10         | SAE Flare 3/4"  | 7.50            | 1.75              | Lerej     |
| 304-4S         | O.D. Sweat 1/4" | 6.25            | 1.00              | Lesok     |
| 304-6S         | O.D. Sweat 3/8" | 6.25            | 1.00              | Lesoz     |
| 305-8S         | O.D. Sweat 1/2" | 6.25            | 1.50              | Letop     |
| 306-10S        | O.D. Sweat 3/4" | 7.50            | 1.75              | Leluf     |

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## Joins Weber Fixture



H. M. BRUNDAGE

## Weber Names Brundage --

(Concluded from Page 1, Column 2)

deputy director of the New York regional district in charge of priorities and materials.

During the severe oil shortage in the winter of 1942, Mr. Brundage was drafted to organize and administer emergency oil regulations for the allocation of fuel oil for all industries in the 17 eastern coastal states.

In the fall of 1943, the late Mayor La Guardia, faced with many difficult problems affecting the food supplies of New York City, borrowed Mr. Brundage from the government to fill the position of commissioner of markets. His work on this job during the remainder of the war was called "outstanding."

In 1945, Mr. Brundage took a leading part in organizing the Terminal Market Corp., which was formed to lease and operate the proposed \$42,000,000 New York produce terminal. He was elected president and general manager upon his retirement from public office. Due to building restrictions, plans for the terminal were held in abeyance.

Mr. Brundage then joined the executive staff of Schenley Distillers, becoming assistant vice president.

A native New Yorker, Mr. Brundage studied mechanical engineering at Stevens Institute of Technology. During World War I, he served as an officer in the Coast Artillery.

At one time he headed his own firm, The H. M. Brundage Co. of Richmond and Norfolk, Va., distributor of refrigerators, heating equipment, and commercial and domestic appliances. Then came the assignments in Washington and New York City.

## All-Industry Show Exhibit Space Sold Out --

(Concluded from Page 1, Column 4)

Association and director of the show. It is believed that more than 200 manufacturers of all types of refrigeration and air conditioning equipment and accessories will display their latest products at the show.

The show will be open only to members of the industry, and each visitor to the show who registers at the show should have a business card or letterhead showing the name and address of the company he represents. The general public will not be admitted.

Those who plan on attending the show and who have not as yet made hotel reservations, should do so immediately through the Cleveland Convention and Visitors Bureau, Terminal Building, Cleveland. This

Bureau handles room assignments.

A special "preview" for refrigeration parts and equipment wholesalers only will be held from 10 a.m. to 2 p.m. on Monday, Jan. 26. On Tuesday, Jan. 27 the Exposition will be open only to refrigeration contractors, dealers, and service engineers.

Following is the schedule of show hours as now planned:

**Monday, Jan. 26**

2 p.m. to 10 p.m.

**Tuesday, Jan. 27**

12 noon to 6 p.m.

(Only for refrigeration contractors, dealers, and service engineers.)

**Wednesday, Jan. 28**

12 noon to 6 p.m.

**Thursday, Jan. 29**

10 a.m. to 4 p.m.

## Time-Payment Plans --

(Concluded from Page 1, Column 5) the maximum down payment is made, 24 months will be permitted.

With non-automatic washers, the association recommends 15 months with the minimum down payment and 18 months with the maximum. With vacuum cleaners, it recommends 12 and 15 months respectively.

Mail order houses have indicated that they are returning to the pre-war standard of 10% down and 18 months to pay. As this is policy on soft goods lines, they feel that the added cost of maintaining separate books would not justify higher credit terms on appliances.

However, some mail order firms are setting up a minimum monthly payment of \$5.

Jesse P. Wolcott, Michigan Re-

publican and chairman of the House Banking Committee, indicated that President Truman might ask Congress during the coming special session to reinstate controls set up by Regulation W.

However, Rep. Wolcott stated that President Truman would have to show that credit expansion was one of the causes of high prices, and he couldn't do that.

## Detroit Dept. of Buildings, Safety Engineering Moves

DETROIT—The Detroit Department of Buildings and Safety Engineering, which administers the refrigeration code and issues permits for installations, has moved from 555 Clinton St. to new quarters at 112 E. Jefferson Ave. here.



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